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**Social and Cultural Construction of Obesity among Pakistani Muslim Women  
in North West England**

Thesis submitted in accordance with the requirements of the  
University of Liverpool for the degree of Master of Philosophy

by

Alison F. Ludwig

April 2012

# **Social and cultural construction of obesity among Pakistani Muslim women in North West England**

**by Alison F. Ludwig**

Higher rates of obesity, Type 2 diabetes and coronary heart disease are observed in British Pakistani women compared to the general UK population. This qualitative research explored the links between the participant's understanding of health risks related to obesity, body image and dietary patterns in a cohort of first- and second-generation Pakistani women, living in Greater Manchester, England. Pakistani women act as gatekeepers to family nutrition and health. The research aims to inform promotion strategies, focusing on healthier changes, and to create increased levels of awareness of the strategies. Beyond South Asian [SA] languages, effective and ethnically appropriate approaches are essential to reach these goals. Research outcomes can no longer just be interesting or show potential, as they ought to contribute to improving women's health and advice public health professionals when making relevant recommendations.

Qualitative techniques, using focus groups and one-to-one interviews, with 55 women, were recruited from the Pakistani community via snowballing and cold calling at community and resource centres. The participants were either active in their local communities or were deemed "hard to reach" in relation to accessibility. The interviews were conducted in the participants' homes or at the venues. Third-person fictitious vignettes were used to stimulate and promote discussion. A series of vignettes were intended to resonate with the participant's own lives. The interviews were audio-recorded, transcribed then analysed. One researcher as a community insider and the other as an outsider, along with sociological analysis, reflected upon then coded the data. Using ethnography and an interpretive, phenomenological framework, allowed for data description and interpretation of an emerging understanding.

The rich data uncovered issues relating to faith, family and broader socio-cultural influences, all of which had an impact on daily life and in particular to food choices. Despite an acknowledgement of obesity in themselves and around them, there appeared to be a lack of awareness linking obesity to health outcomes. The participants in both generations turned to and, in part, relied upon both traditional food and western health beliefs.

As an outcome of the data analysis, a multi-directional theoretical model was developed specifically for this group of women in Manchester, called the **Health Action Transition (HAT)** model. The HAT model is intended to be used as a working tool in a clinical setting to aid in understanding of the Pakistani women's socio-cultural structures and to provide a framework for recommendations relating to health promotion for these women.

## Thesis Related Outputs

### *Peer Reviewed Published Paper*

Ludwig, A.F., Cox, P., and Ellahi, B. (2011). Social and cultural construction of obesity among Pakistani Muslim women in North West England. *Public Health Nutrition*, 14(10), 1842-1850.

### *Conference Poster Presentations*

Ellahi, B. and Ludwig, A. (2006). *Pakistani women's diet, health and obesity: implications for weight management strategies*. Public Health Nutrition Congress, Barcelona, Spain, 28-30 September 2006.

Ludwig, A., Ellahi, B. and Cox, P. (2008). *Obesity and health: understanding the issues in Pakistani women living in the UK*. British Sociological Association Conference, British Library, London.

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### **List of Abbreviations**

1G	First-generation Pakistani, born in Pakistan
2G	Second-generation Pakistani, born in the United Kingdom of Pakistani parents
BDA	British Dietetics Association
BHF	British Heart Foundation
BME	Black and Minority Ethnicities
BMI	Body Mass Index (height/weight <sup>2</sup> or kg/m <sup>2</sup> )
CHD	Coronary heart disease
CVD	Coronary vascular disease
DH	Department of Health (UK)
FAO	Food and Agricultural Organization
FFQ	Food Frequency Questionnaire
HBM	Health Belief Model
HEA	Health Education Authority
HSE	Health Survey for England
NRCD	Nutrition-related Chronic Disease(s)
NSF	National Food Survey
NDNS	National Dietary and Nutritional Survey
NICE	National Institute for Health and Clinical Excellence
NOO	National Obesity Observatory
NW	North West England
ONS	Office for National Statistics
SA	South Asian(s)
T2D	Type 2 diabetes
WC	Waist circumference
WHO	World Health Organization

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## **Chapter One: Introduction**

### **1.1 Rationale, aims and objectives**

Diet has been reported to contribute up to 30% of risk in relation to obesity and mortality. To reverse the rising obesity rates for the diverse UK SA populations, it is acknowledged that health professionals need to take action to have a fuller understanding (DH, 2005, p.12) of the causes of this trend and improve nutrition. To add to the complexity of dietary patterns within each SA household, diversity exists as they are often comprised of 1G, born outside the UK then migrated to the UK, and 2G, born in the UK. Each SA group requires their own healthier dietary messages. Progress has been made in understanding the diversity of SA adult consumption patterns yet more needs to be done. “Uncontrollable risk” factors (Beishon and Nazroo, 1997, p.48) such as health being “God’s Will” or believing health messages may not apply to them need to be considered for the SA diet. Popkin (2005, p.728) wrote that in the field of nutrition, “social, economic and behavioural” aspects are as important as biomedical aspects yet regrettably have been overlooked. Awareness of the links between diet and chronic diseases such as T2D and CHD has an important part to play as it may influence desire to make healthy changes especially for SA populations who are prone to these conditions.

Understanding the body of literature of nutrition, health, national surveys and smaller localised research, promoting healthier behaviours and food practices, is essential in designing interventions for vulnerable women in ethnic groups. Previous small scale qualitative research explained, and sometimes repeated, the SA’s reported food practices and beliefs (e.g. by comparing food choices in different Pakistani generations and genders in Bradford, Jamal (1998); meal differences amongst Scottish SA, Wyke and Landman (1997); or different foods eaten by three Muslim groups (Kassam-Khamis, Judd, and Thomas, 2000). Now research outcomes cannot just be “interesting or show potential”, suggested Stockley (2009b, p.12), as they may not contribute to bettering the women’s health or help health professionals in making useable recommendations. Urgent health awareness targeted at grassroots is still required even if women, as gatekeepers of family diet, believe their traditional diets are already healthy (as cited in Stockley, 2009a). These

issues raise a series of research questions from the outset, informed by the literature, grouped below into three categories (a) Nutrition; (b) Food choice and change; and (c) Health policies and interventions. Within the Nutrition, Food Choice and Change category are possible questions raised from the perspective of the Pakistani woman. The Health policies and intervention category are from the perspective of policy makers.

### **Nutrition**

- What is the best way to address nutritional issues relevant to the Pakistani woman?
- What does she believe about how obesity affects her health?
- How can the Pakistani woman make choosing “healthy” food more of a priority (Khamis, 1996) particularly if she believes her diet is already healthy (HEA, 2000)?

### **Food choice and change**

- Do individuals believe it is worthwhile to change dietary habits?
- What motivates change for the Pakistani woman and her family?
- What choices exist?
- In what ways do religion, tradition, host country and other factors affect Pakistani eating patterns?
- How can health promotion work with controllable and uncontrollable factors and to ensure relevance to lifeworlds?

### **Health policies and interventions**

- How can health promoters work with Pakistani households where different generations may cause possible tension and affect dynamics within the family?
- In what new ways can health promoters communicate and engage with SA more effectively?
- How can health inequalities for Pakistani women be reduced and halted?

## 1.2 Food choice

Germov and Williams (2008), the *Foresight Report* (2007), Bush et al. (1997), McIntosh and Zey (1989), James (2004) and many others have identified that decisions about food choices are not simple processes. For the SA household, food choice is further influenced, and perhaps complicated, by different generations living together (Jamal, 1998). These food choices are contingent upon the social and historical context (Nettleton, 1995) of the community as a minority within a majority white society. This may be better described as social construction, where patterning, beliefs and behaviours evolve because of culture and identities (Germov and Williams, 2008; Nazroo, 1998).

Besides exploring Pakistani food choice, this research is designed to describe deeper realities of the social construction of obesity and health. Obesity, and its attendant health risks, particularly among Pakistani women in the North West, continues to be an increasingly significant problem as the population (*Foresight Report*, 2007) in the NW grows. The Pakistani women play a part in continuing, for themselves and their families, the obesity nexus within the household for food choice, cooking, maintaining traditional habits and caring for health. Effective intervention designs require sufficient understanding of these women's decision-making patterns; once acquired, the relevant understandings help to increase the cultural competency of health professionals who work with and counsel this group. Previously, Greenhalgh, Helman and Chowdhury (1998a) recognised this need and called for more culturally appropriate health programmes in their qualitative research with another SA group, a Bangladeshi community in London.

In recognition of ineffective health promotion messages, the DH reported that they were inconsistent and “out of step with the way people live” (DH, 2005, p.11). To avoid this and to further understand issues from the Pakistani woman's perspective, this research uses qualitative methods and draws upon sociological reflection. This cross-disciplinary enquiry of nutrition and sociology enables “thicker” or more carefully nuanced descriptions of phenomena rather than single approaches.

The three categories of research questions and food choice options (above) have lead to the development of the research aims and objectives, addressing how they will provide, even partially, new answers to some of the questions raised and by not reporting qualitative findings as before.

### **1.3 Research Aims**

- To explore health perceptions and beliefs, diet and lifestyle patterns in 1G and 2G Pakistani immigrants that may contribute to the increased incidence of diet-related conditions (such as obesity, CHD, T2D);
- To explore understandings of health risk and the social construction of obesity and how this relates to initiation and maintenance of dietary and lifestyle choices and change over time;
- To elucidate and understand barriers and motivators for dietary and lifestyle choices; and
- To develop a new framework for understanding the explanations underlying the women's health-behaviours.

Bearing in mind government recommendations and desired healthier outcomes, the objectives of this research aim to capture how these food choices, awareness of health and subsequent obesity is understood and interpreted by Pakistani women. The primary and secondary research objectives are:

### **1.4 Primary objectives**

Description of social and cultural constructs of:

- The British Pakistani Muslim woman
- Her health(iness) and weight
- Her dietary choices

## **1.5 Secondary objectives**

These arise in order to draw comparisons between the women and further interrogate the data, enhancing meanings and understandings:

- Identify motivators and barriers to health awareness and change
- Collect body image perspectives
- Collect demographic data for comparison
- Collect estimated meal consumption data



## **Chapter Two: Literature review**

### **2.1 Diversity and health within the South Asian community**

Health and epidemiological data indicate an ongoing cause for concern with respect to obesity, T2D and CHD in the SA population particularly for the women. Ill health, related to food, costs the NHS £6billion annually (HSE, 2009). This chapter presents an overview of the nutrition, health issues in the SA community based on a review of published and unpublished research mainly in the UK and internationally. Within this context of SA populations, health and faith diversity are discussed briefly with particular focus on Pakistanis. Data on ethnic groups and health trends in the North West of England is presented from the Health Surveys for England (1999, 2003, 2004 and 2009), the NDNS (2002, 2004 and 2010) and the NFS (1998).

UK health, food and nutrition reports consistently collect useful data, making recommendations which form, in part, BME policy. Building upon and extending beyond what is already known is important for improving the quality of life for the Pakistani woman, the cost to her, her family and society. In the 1970s and 80s, SA dietary intake research focused mainly on nutritional deficiencies such as rickets, osteomalacia, and low-birth weight (Bush, Williams, Sharma, and Cruickshank, 1997). Later attention was turned to the diet of healthy SA adults. By 1999, the HSE reported on health, monitored trends and included some eating patterns for adult Pakistanis, in slightly larger numbers compared to early HSEs (but not relative to the overall populations increases). Although the ninth HSE (1999) was the first to include an “ethnic boost” (n=5,487), with a larger scale “representative” sample of adults over 16 years. Running in parallel to the HSE and comparing dietary trends with government (expert) recommendations, is the NDNS. The NDNS, started in 1992 (FSA, 2011) by collecting dietary intake data from over 2,000 adults, aged 19 to 64, comparing genders, ages and regions but not, to a large extent, ethnicities. To further address and understand SA diets, SA food composition and nutrients were reported (Judd, Kassam-Khamis, and Thomas, 2000).

Focusing on SA diet and health was increasingly important because by the 2001 UK Census, Indians, Pakistanis and Bangladeshis, made up a combined total of approximately two million while at the time the total UK population was over 54 million. Within this two million, Indians were the largest ethnic group at 22%, Pakistanis at 16 % and Bangladeshis at 6% (ONS, 2001), and the other ethnic groups made up the rest of this total. By 2001, numbers of the ethnic minority populations grew by 53% (ONS, 2001) since the earlier Census in 1991. However, the 1991 Census was the first to collect ethnic identity (Kassam-Khamis, Judd, and Thomas, 2000), providing an incomplete representation of the population as Northern Ireland ethnicity data was not collected.

A review of faith groups within SA populations provides a picture of the diversity. Indians, Pakistanis and Bangladeshis cannot not be assumed to be one “homogenous group” (Nazroo, 1998; Khamis, 1996; Kassam-Khamis et al., 2000; Bandesha and Litva, 2005). In the UK, those of Indian descent are comprised of mainly three faith groups: Hindus from Gujarat, Sikhs from the Punjab region, Muslims, from different regions (and some Christians) (Nazroo, 1998). Diversity is reflected not only in their religious beliefs (and intra-faith food laws and restrictions) but also in language, lifestyle, health and health beliefs, dietary patterns and habits (Ivey, Khatta, and Vedanthan, 2002). These differences are also reflected between generations and in particular are influenced by migration patterns. Data from 2005 showed that UK SA groups are comprised of different faiths including Muslims (1.6 million at 2.8%), Hindus (560,000 at 1%) and Sikhs (336,000 at 0.6%) (Social Trends 35, 2005). The UK Pakistani population is reported to be at least 90% Muslim; the remainder are Christian or are not aligned with any religion (Social Trends 35, 2005).

Faith has been shown to be important in many ways. In a 1993 cross-sectional survey of BME groups, 74% of UK Muslims noted that their faith was important to them compared to 43% of Hindus and 46% of Sikhs (Fourth National Survey of Ethnic Minorities, 1993). Pollard et al. (2003) found that SA, living in Newcastle upon Tyne, were different from the General Population (referred to as “Europeans”)

in that the SA derived important social support from their place of worship. However, for some Muslims, Islam unifies or divides their community, particularly when individuals became “alienated” from their mosque (Campbell and McLean, 2003, p.252). In their qualitative research, Campbell and McLean (2003) reported that while some Muslims prayed at the mosque, other participants believed, for example, they did not need to attend and instead prayed at home.

Due to the aforementioned diversities and as ways to avoid stereotyping (Farooqi, Nagra, Edgar and Khunti, 2000), dietary habits between the different SA groups and health recommendations cannot be a one-size-fits-all approach. Conventional practice contradicts the application of cultural diversity (Anderson et al., 2003). Nazroo (1998, p.723) explained that ethnic “cultural traditions are historically located” occurring within context, are not fixed and change over time. In the UK, inequalities between and within ethnic groups have been recognised since the Black Report (1980).

## **2.2 Differences in health understandings**

Some differences continue to be in the way the health professional, trained to use western biomedical health models, convey appropriate health messages to Pakistani women. Pakistanis hold deeply rooted culturally important beliefs which they value and if these messages do not take the women’s understandings into consideration then they will not be relevant to them. Since 1997, these differences were noted along with language and communicating difficulties by Bush et al.: “It may be the content of information, rather than its communication which constructs barriers, focussing on changing bad habits rather than acknowledging good ones” (Bush et al., 1997, p.23).

Governmental recommendations are required for meeting health targets and reducing inequalities but mostly are relevant to the UK population as a whole (Marmot, 2010). Smaller regional studies reinforce other issues important to individuals (e.g. their faith, identity, community and maintaining traditional habits, etc.) (Lawton, Ahmad, Hanna, Douglas, and Hallowell, 2006b; Campbell and McLean, 2003).

Some possible examples of government recommendations versus the views of Pakistani women are shown below (Table 2.1). It gives a partial explanation of what the health professional needs to achieve and are required to understand versus what the Pakistani patient/client needs and wants to know. These issues and others helped to inform questions asked during data collection and in the subsequent analysis.

**Table 2.1 Government policies/recommendations versus SA health questions**

<b>Government Policies and Recommendations for the General Population (Top Down)</b>	<b>Questions about what the Pakistani Patient/Client may want to know (Bottom up)</b>
<i>Expert Patient</i> (patient-centred approach) (2001)	Does she want to be the expert in her health decisions?
<i>Expert Patients Programme</i> (2011)	Does she desire or interested to receive support from her health professional? (e.g. if emotional support or traditional health advice is provided at home, why go elsewhere?)
<i>Choosing Health: Making Healthy Choices Easier</i> (2004)	Does she believe that her diet and lifestyle are already healthy?
<i>Tackling Health Inequalities</i> (2003)	Is she motivated to seek support?

Table 2.1 compares differences in government requirements relating to health promotion to questions the Pakistani patient/client may have about her health.

For those designing nutrition-related BME interventions, there are still many questions (Thomas, 2002) and these questions are not only about diet in health and disease but also include beliefs and attitudes, underpinning specific behaviour. The recipients of this advice are unsure too. First and second-generation Pakistani and Indian women and men, residing in Scotland, with T2D expressed concern over a lack of culturally tailored advice from white health professionals which when they left their consultations meant some questions were left unanswered (Lawton et al., 2006b).

### 2.3 Historical context of health inequalities

Nazroo (2009) brought together the profusion of UK policy reports, categorising the shifts in inequalities, as indicated in Table 2.2 (below).

**Table 2.2 List of UK health inequality reports from 1980 to 2010\***

Report title	Year	Report themes
<i>Black Report**</i>	1980	Barley mentions ethnicity
<i>Acheson Report (Independent Inquiry into Inequalities of Health)</i>	1997-1998	Focused on ethnicity and gender; a cornerstone for action on health inequalities
<i>Tackling Health Inequalities: A programme for Action</i>	2003	“One size doesn’t fit all” was emphasized as well as engaging communities.
<i>Choosing Health, Making Healthy Choices Easier</i>	2004	Obesity was a major theme.
<i>Health Select Committee Inquiry –Third Report</i>	2004	Discusses rising levels of obesity and health inequalities, the risks and costs (e.g. including Pakistani women)
<i>Marmot Review. Fair Society, Healthy Lives</i>	2010	Yet to be released at the time of Nazroo’s presentation.

\* As presented by J. Nazroo, 2009

\*\*Cited by Blane, D (1985).

To explain further obesity and inequalities, the *Foresight Report* (Government Office for Science, 2007) ought to be included in the above list as an important indicator of the complexity of obesity and on ways to understand it (e.g. the obesity

system map). The *Foresight Report* (Government Office for Science, 2007) argues that the “fault” of behaviours does not lie within the individual but wider society and the context in which individuals are in. The follow-up report, *Tackling Health Inequalities, 10 Years On* (DH, 2009) gave an update on the widening health gap between different social groups, although much had been achieved, there was much more to do. Measures designed to narrow health inequalities through public health preventative behaviours often end up widening inequalities as prevention (i.e. health education) impacts more on those better off than on the socially deprived (Incentives for Prevention, 2009). “Health inequalities are persistent, stubborn and difficult to change” (DH, 2009, p.12) and new strategies call for learning about barriers.

### **2.3.1 Marmot Review**

Given the extent of background governmental reports addressing health inequalities, health inequalities remain. Health inequalities are not under control despite available research and population data. The *Marmot Review-Fair Society, Healthy Lives* (2010) again demonstrates the gaps in health across genders, ethnic groups and other factors which still exist and are significant. What pertains to the entire UK population (e.g. through national health surveys) is not relevant to certain localised groups. The Review called for intense “urgent action” for engaging and empowering local communities but recommended the DH and NHS continue to lead the way to eliminate health inequalities but they alone will not reduce health inequalities (*Marmot Review*, 2010, p.18). The Review repeated the call for individuals to find ways to influence their own health behaviours and those of their families. These must be done otherwise the cost to the country and individuals are too great.

## **2.4 The rising obesity rates**

The Faculty of Public Health (2006) reported in a toolkit, using data from HSE 2004, on overweight and obesity in ethnic groups, highlighting regional differences, and

predicted future levels of obesity (Healthy Weight, Healthy Lives, 2006 ). For Pakistani women around the UK, their percentage of obesity in 2006 was 22% and by 2050, the rate is predicted to rise to 50% (Healthy Weight, Healthy Lives, 2006, p.13). Comparing these rates to Indian and Bangladeshi women, the predicted levels of obesity by 2050 will be 18% and 30%, respectively (Healthy Weight, Healthy Lives, 2006). The population in the north of England is prone to higher rates of overall obesity (not just ethnic groups) and is predicted to rise and even double to over 65% by 2050. This disturbing trend has shown a steady and consistent increase since 1998. However the HSE 2009 reported that there were indications that General Population obesity trends may be “flattening out” but the trend may only be temporary. For the SA, generational differences continue to be reported. Smith, Kelly and Nazroo (2011) found that obesity trends change between SA generations (e.g. 1G and 2G Pakistani women were 21.6% and 15.7% were obese, respectively).

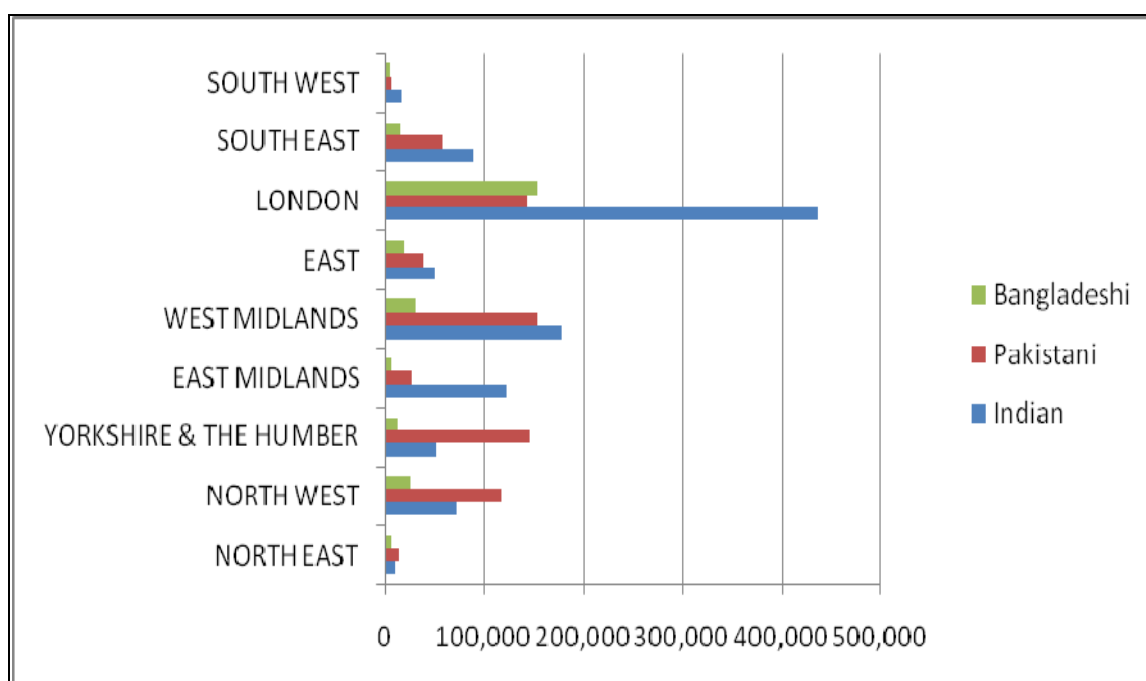
North West health profiles show that for the general population adults in Manchester health is generally worse than the English average and obesity remains an important public health problem (at 21.1%) while the UK average is 24.2% (Health Profile Manchester, 2010).

## **2.5 North West England focus**

Earlier Census data (1991) reported a total of 477,000 Pakistanis distributed across England and Wales. Almost 16% of the Pakistani population lived in the North West (ONS, 1991). The total population of NW England was approximately 6.7 million with 9.1% of this population being of SA origin (ONS, 2001). By comparison in 1991, people of Afro-Caribbean origin represented 4.5% and of Chinese origin 1.3% in the North West (ONS, 2007).

Overall regional distribution of SA groups in the UK is shown in Figure 2.1 (below). According to 2001 data, the number of Pakistanis residing in the NW was approximately 117,000; compared to nationally, Pakistanis represented 1.25% of the total population (ONS, 2001). There were more British Pakistanis living in NW

England than British Indians or British Bangladeshis (see Figure 2.1 below) whereas the total White British population in the NW region totaled 6.2 million (ONS, 2001). Pakistanis residing in the NW represented the fourth largest concentration in the Great Britain after the West Midlands, Yorkshire, Humberside and London.



**Figure 2.1 General UK Distribution of South Asian Groups**  
(ONS, 2001)

Projected growth of the total SA population in NW England, specifically in Lancashire and Greater Manchester, is expected to be 71% by 2021 (compared to 57% for the Black population and 34% for the Chinese population) (North West Regional Development Agency, 2003, p.24-27). Unlike the White population, which shows an aging profile, the SA population will have the largest number of younger people. Thus this growing and younger population will have specific health needs. The 2002 NW Health Bulletin (p.2) indicated that the NW population did not have a significantly higher average prevalence of obesity than the rest of England. However, due to the rising numbers of Pakistanis residing in the region, specific attention needs to be focused on them. *Investment for Health. A Plan for NW*



*England* (2003, p.27), confirms this message as “the health of BME populations is worse than that of the population as a whole”.

Lee, Syed, and Bellis (1998) wrote a report focusing exclusively on BME groups in NW England for the purpose of understanding factors which affect their health. It was hoped, at the time that this report would act as a catalyst, by exploring health services, taking action with shared knowledge, experiences and views. Later the NOO used an online dynamic map to visually represent trends of obesity around the UK (with data from HSE 1993 to 2008). The map shows that adult females (16+) in the North East and West have the highest rates of obesity which started in 1995 before the rest of the UK (NOO, 2011). The worsening health and obesity trends in the region indicate that the early report by Lee et al. (1998) did not appear to serve its intended purpose.

## **2.6 The costs of obesity**

The high rates of obesity have greatly impacted socially and personally across the UK. In 2006, the National Audit Office reported the financial cost of obesity in the UK. To the NHS, annual obesity treatment costs were approximately £0.5 billion (1998 data) and impacted on the economy by approximately £2 billion in 2001 (National Audit Office, 2001). In human cost, 9,000 die prematurely each year due to obesity (DH, 2007) and estimates are that it shortens a person’s life by nine years (National Audit Office, 2001). Other factors related to obesity are inestimable, for example, psychological issues such as low “self image, lack of confidence, social stigma” and “reduced mobility and a poor quality of life” (DH, 2007).

## **2.7 Obesity and health**

Seidell (2000) wrote that obesity as a worldwide epidemic includes the suffering of diabetes (as well as cardiovascular disease and other conditions). Seidell (2000, p.S7-S8) called for “an improvement in nutritional habits” and concluded that the

increased levels of obesity observed are due to increasingly sedentary lifestyles and increased energy density of diets. In 2003 in the UK, obesity rates, as indicated by BMI (weight/height<sup>2</sup>) 30 kg/m<sup>2</sup> and above, were found in 22% of men and 23% of women (HSE, 2003). By 2009, those rates rose to 44% in men and 33% in women (HSE, 2009). As well as diet and decreased physical activity, which are contributing factors from the perspective of energy balance, obesity is a complex issue since it is influenced by broader psychosocial factors. Cultural and religious influences further complicate this.

BMI levels were established by WHO (2009) as a means of clinically identifying underweight, normal weight, overweight, obese or morbidly obese individuals. To date, BMIs have been the indicator for obesity and are still primarily used by clinicians (NOO, 2009). High BMIs were intended to “trigger action” with appropriate modifications in lifestyle from health professionals (WHO, 2004). An obese adult, as defined by the WHO (1997), with a BMI of over 30 kg/m<sup>2</sup> (normal and desirable weight range is between 18.5 kg/m<sup>2</sup> to 24.9 kg/m<sup>2</sup>), which represents a WC of more than 88cm in women and 102cm in men (NHS Your Weight, Your Health, 2006) (Table 2.3 below). A raised WC did not always mean that a person was obese (HSE, 2003). Likewise a lower BMI might also indicate a higher percentage of body fat, which in turn reflects higher disease risk (London Health Observatory, 2005). This is a particular concern for those of SA origin (Deurenberg, Deurenberg-Yap, and Guricci, 2002). Besides its clinical application, BMI is used as a “measure of fatness” in UK national surveys (NDNS, 2004) however, due to insufficient ethnic boosting, this measure relates mainly to the general UK adult population and not necessarily to SA populations. While obesity experts are “locked in debate” about the appropriateness of using BMI for ethnic groups (as well as different age groups), others have suggested the easier and quick method of using the waist-to-height (boundary value) ratio measure in the general population of 0.5 for women and men, both White and of different ethnicities (Ashwell and Hsieh, 2005, p.303). Their key public health message was that WC should be kept less than half of height (pertinent for SA who tend to be shorter than their White counterparts) (Ashwell and Hsieh, 2005).

Due to the growth and development patterns of the SA populations for whom there is a tendency for fat to be deposited centrally and for whom there is also a high prevalence of T2D and CHD (NOO, 2009), it has been suggested that BMI rates are given a lower cut off point for overweight compared to the general adult population. This lower cut off point is 23 kg/m<sup>2</sup> for being overweight rather than 25 kg/m<sup>2</sup> suggested for the general population (Shiwaku , Anuurad, Enkhmaa, Kitajima and Yamane, 2004). Table 2.3 (below) shows the differences in body measurements between the general population and SA groups in the UK.

**Table 2.3 Comparisons of UK General & South Asian populations of BMIs &WC**

<b>UK Populations (16 years+)</b>	<b>Optimum BMIs*</b>	<b>Optimum Waist Circumferences§</b>
<b>General Population</b>		
Men &	18.5 –25 kg/m <sup>2</sup>	≤102cm (men)
Women		≤88cm (women)
<b>South Asian</b>		
Men &	18.5 – 23 kg/m <sup>2</sup>	≤90cm (men)
Women		≤80cm (women)

\*Choo, V (2002).

§NHS. Your Weight, Your Health (2006).

Table 2.3 represents data from two sources suggesting that in SA men and women should have lower cut-off BMIs and WCs in comparison to general population men and women for optimum health.

While the NICE guidelines (2006) recommended a combination of BMI and WC to estimate health risks from obesity, in the same year, the NHS (NHS Your Weight, Your Health, 2006) advised health professionals to note “cases where BMI, in isolation, may be appropriate” (e.g. in some ethnic groups). They recommended a

WC for SA women to be  $\leq 80$ cm, lower than for the general female population at  $\leq 88$ cm. A lower measurement for SA women (and men) represented increased disease risk. There is a propensity for SA to be apple-shaped (versus pear-shaped). Once it is clearly understood what SA are consuming, in what quantity and if there is a willingness to adapt, the health trends could be reversed or modified (such as reducing excess weight around the waist, increasing physical activity or reducing fat intake) (Vyas et al., 2003). Your Weight, Your Health (2006) advised health professionals on short term, medium term and long-term weight loss goals in patients for optimal health benefits but did not suggest more specific recommendations for SA populations.

Besides the lower BMI cutoff suggested in SA men and women (Table 2.3 above), different obesity rates exist for the SA groups. Pakistani and Indian women have a greater tendency to be obese compared to Bangladeshi women (DH, 2000; Bhopal et al., 1999). Pakistani women (approximately 55%) were more than twice as likely to have raised waist-to-hip ratios as women in general (20%) (Fox, 2004). This BHF and NHS report (Fox, 2004), summarised that Bangladeshi women were three times as likely (approximately 72%) to have raised waist-to-hip ratio as compared to women in general. Indian women had a smaller ratio in comparison to Pakistanis and Bangladeshis (approximately 34%). Obesity was a key contributory factor, reported McKeigue (1992, p.341), in relation to CHD and in the prevalence of T2D in urban-dwelling Indians, Pakistanis and Bangladeshis, suggesting a “common underlying explanation”. McKeigue (1992) proposed that the criteria for ideal weight for Europeans are inappropriate for SA due to differences in body size and fat distribution. The insulin resistance hypothesis was related to SA men and women predisposed to central obesity and T2D particularly for those under the age of 40 (McKeigue, 1992).

Besides epidemiological information on obesity, Crossley (2004) reflected upon “the sociological debate on obesity” by attempting to explain issues surrounding its social construction and de-construction. He concluded that society needed to explore its

reaction to obesity and differences of susceptibility (and reaction) among different groups (including ethnic groups) (Crossley, 2004, p.250).

## **2.8 South Asians in research on health and disease**

Being SA is a risk factor in developing many NRCDs yet there has been a paucity of research (particularly qualitative research) studying ethnic groups (Carlsson and Johnson, 2004). Many reasons have been suggested for the paucity.

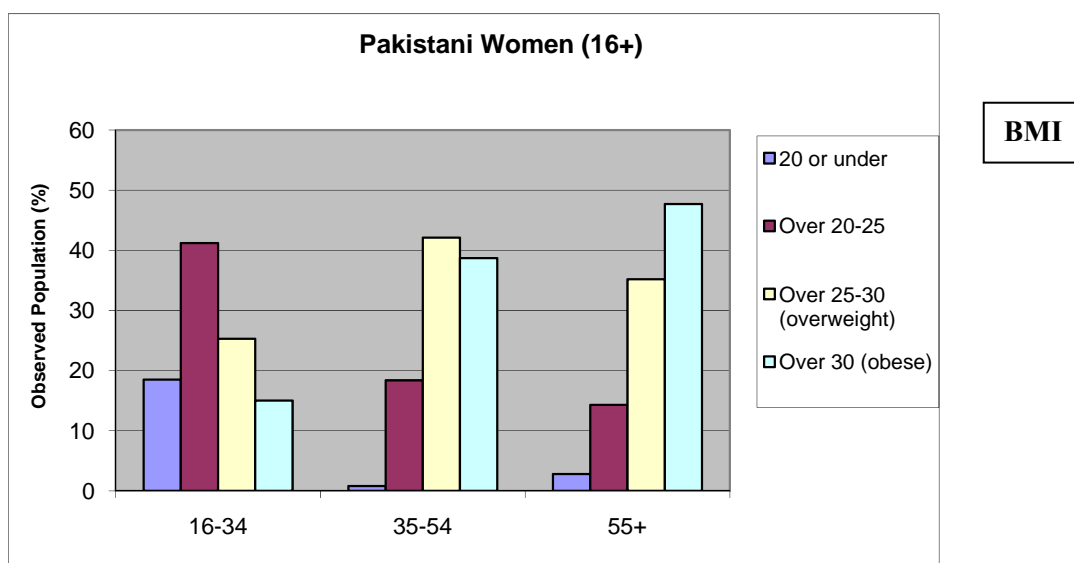
In the US, societal “taboos” were noted in Asian immigrants (Chinese and Japanese) when talking (“gossiping”) about personal and family problems outside the family (Dhooper, 2003, p.71). This loyalty to family may lead to avoiding revealing negative information (Kim, Brenner, Liang, and Asay, 2003). A westernised view of illness focuses on a particular part of the body rather than the mind and body together (Bhopal, 1995). In addition to the Asian trait of “acceptance of suffering in life”, inevitably coupled with “fatalism”, may explain difficulty in discussing improved nutrition which will lead to optimal health. Campbell and McLean (2003, p.259) found amongst their female Pakistani participants that a “range of constraints limited women particularly Pakistani-born married women with poor English skills from networking freely beyond the sphere of family and household”. Thus participants may fear negative comments by discussing their families. Yet grassroots participation is essential in view of the “dearth of collaborative research between health academics and health activists working at the community level” (Campbell and McLean, 2003, p.260).

## **2.9 Findings from UK health surveys**

For the first time, the Health Surveys for England 1999 (Bajekal et al.) and 2004 included boost samples of BME groups (HSE 1999 is described later). These surveys included ethnic groups but were more health and lifestyle-orientated and

they lacked in-depth information on eating patterns, healthy and unhealthy, and connections to health awareness.

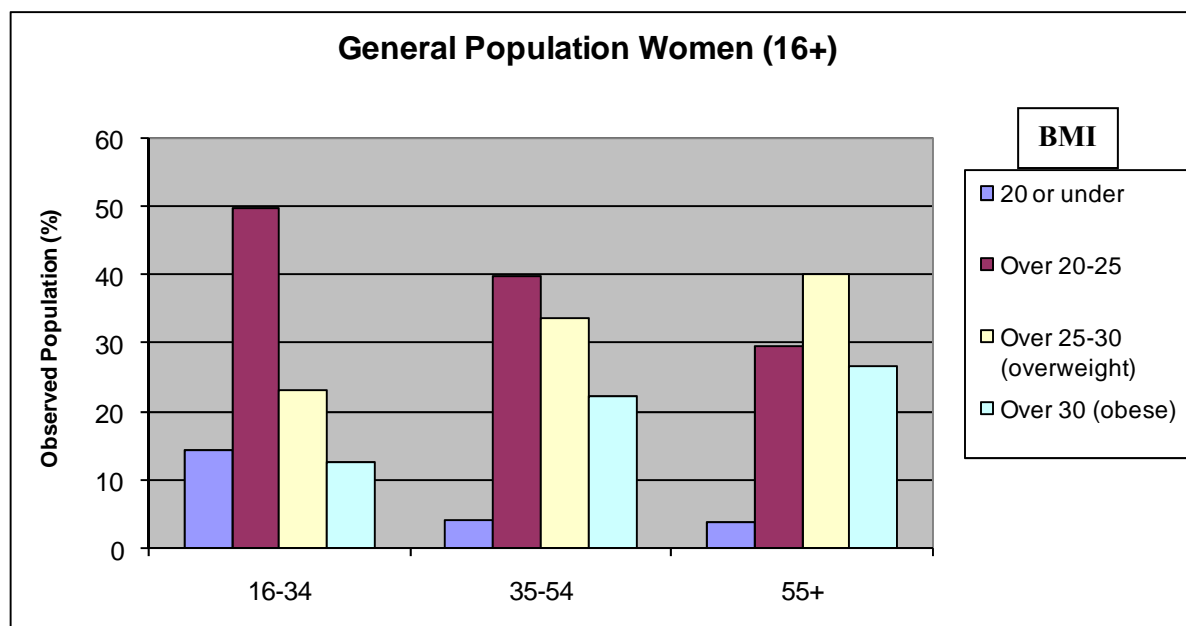
Tabulated raw data extracted from HSE 1999 (Primatesta and Hirani) is presented in Figures 2.2, 2.3 and 2.4 (below), comparing the BMIs in women from three SA groups to women in the General Population. Figure 2.2 shows BMIs by age for Pakistani women. There is a steady increase in overweight and obesity in these women after the age of 35. Figure 2.3 depicts levels of BMI rates in the general population across different age groups. When compared to Figure 2.2 it demonstrates that for Pakistani women the increase in BMI is marked around 35-54 years but occurs in the 55+ age group in women from the general population. Furthermore the Pakistani women show a higher percentage of BMIs over 30 kg/m<sup>2</sup> (nearly 50% in Figure 2.2) whereas in the General Population the rate was nearly 30% (Figure 2.3). Figure 2.4 compares the BMI of the three SA groups to the general population (HSE, 1999). The BMI rate in the Bangladeshi is lower than other groups (although rates of diabetes are still high).



**Figure 2.2 Pakistani women: BMI kg/m<sup>2</sup> ranges by age (16+)**

HSE 1999, Volume 1, Chapter 6, Table 6.7, p.162-163.

Figure 2.2 presents a representative sample of Pakistani women in England and a steady increase in obesity levels, BMI 30 kg/m<sup>2</sup> and over, with increasing age.

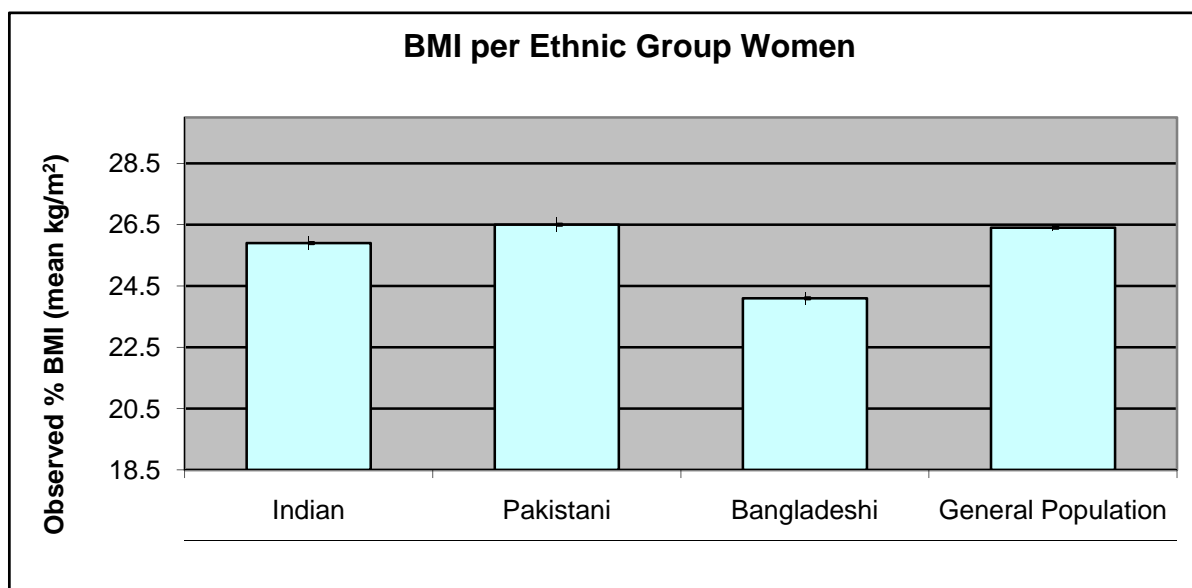


**Figure 2.3 General Population Women: BMI kg/m<sup>2</sup> ranges by age (16+)**

HSE 1999, Volume 1 Findings, Chapter 6, Table 6.7, p.162-163.

Figure 2.3 presents a representative sample of general population women in England and a slower increase in obesity levels, BMI 30 kg/m<sup>2</sup> and over, with increasing age.



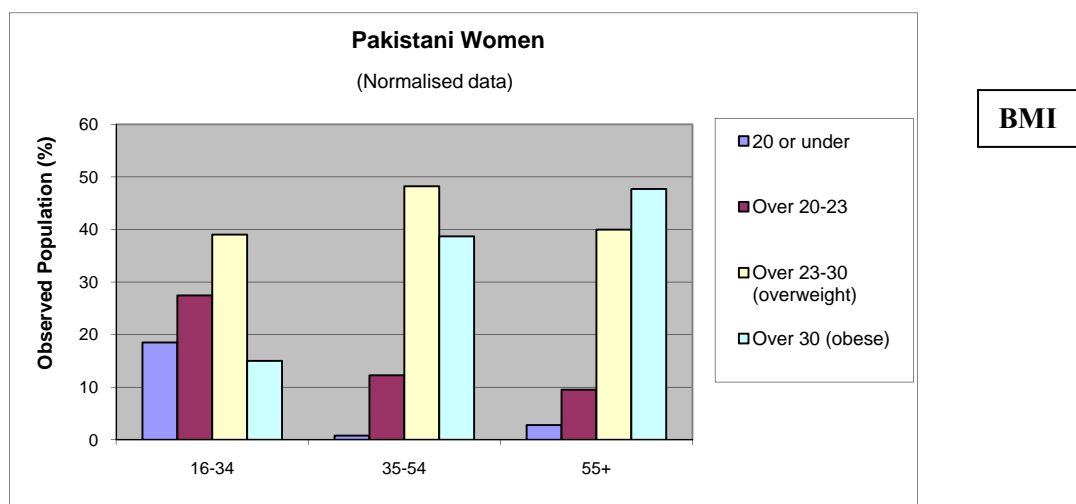


**Figure 2.4 BMI for the three groups of women, South Asians & General Population**

HSE 1999, Volume 1 Findings, Chapter 6, Table 6.7, p. 162-163.

Figure 2.4 presents a comparison between observed % BMI means in all women (16+), Indian, Pakistani, Bangladeshi and the general population. The standard error of the means for SA populations is between 0.20 and 0.24 and 0.09 for the general population.

Figure 2.5 (below) presents normalised data (from HSE, 1999) for Pakistani women calculated using the lower cut-off BMI point at 23 kg/m<sup>2</sup> as recommended by the NHS (Your Weight, Your Health, 2006). When compared to the actual data (Figure 2.2 above), Figure 2.5 shows that there is a greater percentage of overweight women at the younger age of 35 to 54 years (and in 16 to 34 years) than is first observed if the standard BMI cut-off point is used as the single value for risk indication.



**Figure 2.5 Pakistani women BMIs (16+) with a 23 kg/m<sup>2</sup> (BMI for overweight; normalised data from HSE, 1999)**

**Note:** Assuming an equally distributed population within each BMI group, a normalisation of the initial data is calculated and presented in Figure 2.5 for the standard BMI kg/m<sup>2</sup> categories for Pakistani women in England showing a higher rate of overweight women at younger ages.

Figure 2.5 shows that by lowering BMIs from 20-25 kg/m<sup>2</sup> to 20-23 kg/m<sup>2</sup>, a higher percentage of Pakistanis (ages 35-54) are overweight therefore health promotion needs to start at a younger age compared to the general population.

## 2.10 Coronary heart disease

CHD is the number one cause of death in the UK and in the North of England death rates from CHD remain the highest (BHF, 2010a). This higher incidence of CHD within the SA population is not just a recent concern. In the 19<sup>th</sup> century, migrants from India were noted to have high CHD rates after arriving in the US (Enas et al., 1996). SA have a higher premature death rate due to CHD than the average UK

individual (BHF, 2007; Gupta, de Belder, and Hughes, 1995). The BHF reported that the premature death rate of heart disease is 46% higher in Indian, Bangladeshi, and Pakistani (and also Sri Lankan) men compared to the same rate in UK men at 22% and for the SA woman at 51% higher compared to the average UK female at 13% (BHF, 2007).

Comparisons of the mortality rates for CHD in the SA population with the General Population reveal observable differences. From 1971 to 1991, the mortality rate from CHD fell by 20% for SA males, aged 20 to 69 years and by 29% for the general population. However, this fall was only 7% for SA females and 17% for the women in the general population (BHF, 2007). HSE 2004 indicated that Pakistani women, age 55+, had the highest rates of heart attacks at 6.9% compared to the other SA women of the same age. Bangladeshi women had a prevalence of 5.6% and Indian women a prevalence of 3.5% (HSE, 2004). Between HSE 1999 and HSE 2004, there was not a noticeable improvement in rates of heart attacks in these groups of women despite a number of interventions around this health agenda.

In South London, within BME and the white populations, Cappuccio, Cook, Atkinson, and Strazullo (1997) compared a cohort of Whites (n=524), people of African and Caribbean descent (n=549), and SA (Hindus and Muslims; n=505). They reported 27% in the SA group of previously undetected cardiovascular risk factors (such as hypertension and raised, undetected or untreated blood pressure) compared to 21% in the white group and 12% in the Afro-Caribbean group. Cappuccio et al. (1997, p.555) wrote that when considering the cardiovascular risk factors, more “tailored preventive strategies” are needed.

Another study examined other CHD risk factors and found non-uniformity among the three SA groups in Newcastle upon Tyne. Bhopal et al. (1999) highlighted heterogeneity of CHD risk factors in a cross-sectional study of three SA groups (n=325; Indians, Pakistanis, Bangladeshis) compared to a European cohort (n=425). Bhopal et al. (1999) concluded that Bangladeshi women had eight CHD risk factors

(e.g. low fruit and vegetable consumption, low levels of aerobic exercise, impaired glucose tolerance, etc.). Despite obesity being more common in Pakistani and Indian women, with fewer overall (non-combined) risk factors, SA women are more likely to have CHD than Europeans (Bhopal et al., 1999, p.219). Pakistani women had just one CHD risk factor (lipoprotein levels) and Indian women had three CHD risk factors (higher BMI, fibrinogen levels, and high blood pressure). Overall, however, the SA groups had a total of ten CHD risk factors compared to five in the European group. This diversity of CHD risk within SA groups should be specifically referred to, for example, as “Muslim heart disease” or “Pakistani heart disease” as opposed to “SA heart disease” (Nazroo, 1998, p.717). Bhopal et al. (1999) urged future research for CHD in SA groups must take into account their range of the apparent risk factors and the different cultural and linguistic needs of each group.

For CVD conditions and heart attacks, in particular, Pakistani women ages 35 to 54 years reported 0.7% rate (versus the general population at 0.5%) and Pakistani women ages 55+ reported an increase to 7% (versus the general population at 4.5%) (HSE, 2004, p.79-80). For the same group, there was an increase for any CVD from 19% in 1999 to 22% in 2004 (HSE, 2004, p.87). The findings of HSE 2004 indicate that the health of Pakistani women did not appear to improve from 1999 and 2004 and is still worse than women in the general population in England.

Irrespective of financial costs to the UK economy of CHD and CVD, this brief review of key research highlights some health risk factors to SA groups. Nazroo (2001) reported that it is well documented that SA groups are diverse and do not share the same risk of heart disease. For Pakistanis, in particular, the risk factors and the extent of disease prevalence further indicate the importance of specific tailored health interventions.

## **2.11 Type 2 Diabetes**

The other nutrition-related condition, which the SA groups suffer from in large numbers, is T2D. In 2005, it was known that in the UK 1.8 million suffered from diabetes and a million more (the “missing million”) were undiagnosed (DiabetesUK,

2007a). While T2D mostly appears in adults over 40, it often appears before age 40 in SA (DiabetesUK, 2007b). Diabetes, which increases the risk of CHD and is related to obesity, is six times more common in SA, particularly Pakistani men and women, than in the White (European) population (DiabetesUK, 2010; BHF, 2007). Yet as early as 1985, these outcomes were also shown in the Southall Diabetes Survey (Mather and Keen, 1985).

The Southall Diabetes Survey (Mather and Keen, 1985) was one of the earliest influential studies highlighting the prevalence of diabetes mellitus in the SA community living in one area of London. The house-to-house survey measured BMI and central adiposity in diabetic SA (n=761); and Europeans (n=324) (and Afro-Caribbeans; n=44). The report noted the particularly high prevalence of diabetes in the middle years of life (12% for 60 to 69-year olds) for SA (mainly Sikhs from the Punjab region). The overall rate of diabetes was five-fold greater for the 40 to 64 year old group compared to Europeans in the same age group. No “major differences in adiposity” were observed (Mather and Keen, 1985, p.1083). Mather and Keen (1985) were, however, unable to report if obesity was higher in their SA cohort or whether a degree of adiposity was diabetogenic compared to their European cohort.

Later, Barker (1995, p.39) proposed a hypothesis to explain weight gain and ultimately diabetes in the SA population. He suggested that Indian people who migrate to Britain, have a change in environment from poor nutrition in-utero then eventual weight gain, resulting in an obese child/adult more likely to develop diabetes. Enas et al. (1996, p.351) supported this by suggesting that Indian immigrants living in the US were already “disposed to adult diabetes, however along with migration, this tendency may increase”. Type 2 diabetics are predominately overweight or obese (70-80%) and the “distribution of their fat” has a role in diabetes development (Parillo and Riccardi, 2005, p.8).

In their meta-analysis of worldwide research identifying risk factors for T2D, Parillo and Riccardi (2005, p.15) reported that the composition of diet was associated with

the development of diabetes. These dietary factors were: (1) low fibre intake, (2) high trans fatty acid intake and low unsaturated fat: saturated fat intake ratio, and (3) the absence or excess of alcohol. These factors were associated with an energy dense diet typical of the western population. Parillo and Riccardi (2005) concluded that emphasis needs to be on prevention, moderate change in the diet and other lifestyle modifications.

Table 2.4 (below) shows comparative data extracted from three HSEs (2003, 2004, and 2009). The prevalence of doctor-diagnosed diabetes for Pakistani women was over 44.4% at age 55+, which is alarmingly high when compared to the general population for which the rate is 4.7% (in women 55 to 64 years) and 8.4% (in women 65 to 74 years). This prevalence was also higher when compared to Indian women (20.5%) and Bangladeshi women (13.5%) of the same age group (HSE, 2004).

**Table 2.4 Prevalence of doctor-diagnosed diabetes (Type 1 and 2) by age & ethnicity**

<b>Doctor Diagnosed Diabetes (Types 1 &amp; 2)</b>	<b>HSE 2003 (no ethnic boost)</b>	<b>HSE 2004<sup>§</sup> (with ethnic boost)</b>	<b>HSE 2009* (no ethnic boost)</b>
Pakistani Women 55 years+	--	44.4%	--
<b>General Population</b>			
Women 55 to 64 years	4.7% *	--	6.3% *
Women 65 to 74 years	8.4% *		9.2% *

§ HSE 2004, Table 3.3, p.13.

\* Data from Trend Tables, HSE Health and Lifestyles Vol. 1, 2009. Comparative data with the general population was only available with HSE 2003 and HSE 2009 Health and Lifestyles Volume 1.

Table 2.4 presents comparative data between three Health Surveys of England showing the higher percentage in Pakistani women (55+) of doctor-diagnosed diabetes, Types 1 and 2 versus lower percentages in general population Women (55 to 74 years).

## **2.12 A better understanding of Pakistani health beliefs and diet is required**

Nettleton (1995a) explained from a sociological standpoint that health concepts and explanations vary among social groups, and vary over time according to lifestyles. *Choosing a Better Diet: A Food and Health Action Plan* (DH, 2005, p.11) concurred by reporting that “health messages can be inconsistent or out of step with the way people live”.

Cultural health and food understandings have been reported in other BME groups. For example, Scott (2001, p.97) found that people of Caribbean origin responded to health education only in ways that apply to their understanding of their body and health. “Washouts” or cleaning out of their system and fasting were ways to cleanse and lose weight. Their beliefs had their own “internal logic” and were often gained through personal experience then passed on through the “socialisation process”. The Scott (2001, p.97) research also showed that the Caribbean participants (n=160) were unaware of the relationship between obesity and diabetes.

In 1997, Greenhalgh noted a lack of research on diabetic British SA health beliefs. Then later Thomas (2002, p.565) acknowledged with ethnic groups there were still more “questions than answers” regarding nutrition-related interventions. These questions were not only about diet in health and disease but also about attitudes and beliefs, underpinning behaviour. She concluded that culturally appropriate programmes and interventions were still required (Thomas, 2002). Later, Stockley (2009b, p.3), in a review of UK-tailored dietary interventions for BME groups, agreed that interventions are still required and noted the “dearth” of UK research in this area.

### **2.13 Utilising the health evidence in the UK and internationally**

In the UK, some smaller regional projects for increasing health awareness use specific interventions for SA addressing the CHD and T2D agenda. One UK example is Project Dil, based in Leicester, initially received funding for two years but later was adapted by Leicestershire Health Services (Farooqi and Bhavsar, 2001). Project Dil focuses on primary and secondary CHD prevention programmes including peer education. The project aims to increase awareness (e.g. through health fairs) of lifestyle risk factors (including obesity) within the SA families. It has been shown that health promotion is more effective when the entire family is involved. The outcomes of Project Dil made “considerable progress in engaging and driving changes” in ethnically specific CHD management (Farooqi and Bhavsar, 2001, p.265).

In the US, cultural competency, defined as the “capacity to identify, understand, and respect the values and beliefs of others” (Anderson, Scrimshaw, Fullilove, Fielding, and Normand, 2003, p.74) is integrated into a quality healthcare programme. One such programme is known as CLAS (culturally and linguistically appropriate services) (Anderson et al., 2003).

Project Dil and CLAS are just two examples of interventions which focus and enhance health awareness aimed at BME groups. They support and drive change within communities but without funding they cannot be sustained.

The next section of the literature review focuses primarily on Pakistani society. It gives an overview of family roles, faith and food practices.



## **2.14 The Pakistani Muslim Community: life, health beliefs, food and identities**

Islam is not what they do on Sundays; it is a complete identity filter through which every relationship, every item of news, every bite of food, is mediated (White, 2006, p.60).

The purpose of this section is to present a picture of the Pakistani Muslim community, home life, faith perspectives, health beliefs and identities as reported in the literature. It aims to provide a foundation for specific understanding of factors which influence cooking, eating and food shopping practices within the household. It acknowledges the importance of role identities, providing background information for the non-Muslim.

## **2.15 Pakistani Muslim women and her family**

The Pakistani family unit, as described by Bhopal (1995, p.156), is one of the most “closed and private” of all social groups. The reasons behind this were considered by Werbner (1999) who described the UK Pakistani diasporic family as an important unit who focused inwards, rather than on the wider British society where they may experience scorn and be stigmatized (e.g. name calling, abuse, etc.). Within this household, each member has a role sharing a sense of responsibility towards the family. For Pakistani (born) women, “may define themselves (their identities) by their children and husbands” (Campbell and McLean, 2003, p.253), the women being the “core of society” (Ahmed, 2007, p.9). She has an important role within her family unit and for Pakistani society as a whole. She is considered “noble and vital, shaping the future of nations” (Badawi, 1980, p.141). The Muslim family as the foundation of Islamic society offers peace, security and stability, all greatly valued and seen as essential for the spiritual growth of its members. A harmonious social order is also created by the existence of extended families: “children are

treasured, and rarely leave home until the time they marry” (Islamic Society, 2011). These Muslim children will have a strong connection to Islamic culture whether they are raised in Pakistan or Britain (Werbner, 1999).

## 2.16 Gendered roles and Purdah

“Women are gatekeepers of family health and family life”  
(Jamal, 1997, p.182).

Campbell and McLean (2003, p.252) described the Pakistani family as having a “strong sense of mutual responsibility for emotional, financial and practical well-being of other family members” and individually “family members contribute to the reputation of the collective family unit”. The woman is the gatekeeper who controls food purchases and consumption in her home (McIntosh and Zey, 1989).

The standards of gender modesty and restrictions often discourage her social participation away from the home (e.g. women’s groups, sports, English classes, etc.) thus her duty and responsibility turns inward to her family (Campbell and McLean, 2003).

As a way to maintain the SA “family structure and coherence”, women perform rituals and observances in order to hold the family together (Moore, 2004, p.59). The women’s round of daily rituals with mainly Pakistani family and friends are maintained and carried out without the need to learn or speak English (Werbner, 1999). One Muslim observance is Purdah. Moore (2004) defined Purdah, as the seclusion of women. Purdah is the “curtain”, behind which a “woman must always be hidden” (Moore, 2004, p.15). Purdah prohibits women from being seen in public as well as mixing with men other than husbands, fathers, brothers or uncles. It is forbidden for members of the opposite sex to mix with each other unless they are close relatives. Purdah is a woman’s defence against sexual predators and her own base instincts” (Moore, 2004, p.16) as men are thought “incapable of controlling

themselves in the presence of females. However, the Quran describes man's "guardianship" of a woman (Moore, 2004, p.163) thus Purdah is protective for women in an environment where women require protection from other males (Mawdudi, 1980).

In relation to the family diet, Purdah is reflected by maintaining traditional eating habits (Khamis, 1996). Purdah, as a part of life and as a form of segregation restricting freedom to move, includes where this woman shops and very likely to certain food choice. UK research reported that 1G women tend to shop in SA food shops due to their inability to speak English thus these women have less regular contact with the local population (Parsons, Godson, Williams, and Cade, 1999).

### **2.17 Faith perspective**

Diet, health beliefs and behaviours are also connected to faith perspectives. For Muslims "health is viewed as one of the greatest blessings that God has bestowed on mankind", the stomach is the "home" of ill health and that eating a healthy diet in moderation is acceptable to the Muslim way of life (Muslim Health Network, 2011). According to Islamic principles, excessive eating or wasting food is not acceptable behaviour (Muslim Health Network, 2011). The Quran dictates what foods should and should not be consumed by Muslims. Followers of Islam strongly believe in maintaining edicts such as halal (for example, halal prepared meat) and haram foods (Islamic Food Council of America, 2011). The Quran describes foods which are haram as they are "bad, impure and harmful" (Abdalati, 1975, p.110). Islamic rule states that pork and pork products are not allowed (examples of haram) (The Muslim Food Board, 2011); however beef and chicken are halal, providing halal slaughter is observed.

The opposite of halal is haram, which means unlawful or forbidden (Halal Food Authority, 2007). Haram foods are specifically prohibited, for example, animal fats and alcohol (Fieldhouse, 1996). Haram also refers to products within foods such as animal products and gelatin (some E additives are haram) (BDA workshop, 2006).

Other haram products are blood, blood by-products, birds of prey and land animals without external ears (Islamic Food and Nutrition Council of America, 2010). Halal and haram serve the purpose of helping the Muslim to become a “healthier” family within the community (Abdalati, 1975).

“Hadees” is the Islamic thinking, which seeks prophet guidance. The Quranic belief is that the stomach should be filled with one-third water, one-third food and one-third is left empty so praying is more comfortable. Greenhalgh et al. (1998a, p.981) reported previously in UK Bangladeshis that praying was considered a “worthy and health giving form of exercise”.

## **2.18 Health awareness and well being: risk, fate and destiny**

Lack of awareness between diet and health has been previously reported. Beishon and Nazroo (1997) identified that Bangladeshis, as another Muslim group, were in particular need of information and appeared to have the lowest awareness of connecting diet and CHD (and other diseases). The health beliefs of a community are connected to its understanding of the body and “making sense” of what is happening (Beishon and Nazroo, 1997, p.3). It has, however, been suggested that before addressing nutrition messages to SA groups their understanding of health and diet needs to be assessed (Zannath and Williams, 2005). The concept of self-reported health is also relevant. Piko and Stempsey (2002, p.233) wrote that “modern societies devote enormous amounts of time, money and effort to preserving health”; however, in developed nations people reported higher rates of disability, symptoms and general dissatisfaction with their health and well-being. In the Census (2001) both Pakistani and Bangladeshi men and women in England and Wales reported the highest rates of self-reported health as “not good”. For age-standardised Pakistani men, “not good health” was reported at a rate of 13%, for Pakistani women, it was 17% (in comparison to 8% for men and women of the general population) (ONS, 2011). Capturing information on self-reported health is

important because it “is strongly associated with the use of health services and mortality” (ONS, 2011).

Understanding health perceptions and risks, and their relationship to health outcomes is an important aspect of working with the SA community. The government recommends taking responsibility for one’s health and to not consider poor health as inevitable (DH, 2004) yet ethnic minority groups often perceive health as being beyond their control. Some may consider health issues an area of “specialist knowledge”, accessible only to health professionals (Beishon and Nazroo, 1997, p.8). Diabetes research into risk perception and communication within ethnic communities is limited (Fisher et al., 2002). In a HEA (2000, p.3) survey of BME groups, the subjects (n=4452) identified healthy eating and regular exercise as important in improving health. However, the respondents indicated a “considerable lack of understanding of the causes and implications of key ill-health conditions”. The connection between understanding health issues and making appropriate eating choices (and other lifestyle choices) might not be clear, creating a “passive relationship” with their health (HEA, 2000, p.6).

This passivity stems from a belief in health misfortune or the inevitability of bad health (Piko and Stempsey, 2002). Fatalism implies an external locus of control or a lack of control over one’s health (Nettleton, 1995). For older Bangladeshis, fate played a role in health beliefs (Zannath and Williams, 2005). However Greenhalgh et al. (1998a, p.980) reported in Bangladeshi participants that in relation to diabetes, a belief of God’s Will coincided with views of “individual responsibility for change”. The concept of “preventive care was not well understood” by these Bangladeshis (Greenhalgh et al., 1998a, p.982).

Risk opposes the notions of luck or fatalism with regard to health. Nettleton (1995a, p.52) wrote that “health can be promoted and disease can be prevented by the identifications and control of risk factors” only if risk is perceived. So if a woman

believes what will be, will be, then they may not have an inherent sense of risk (Nettleton, 1995a, p.56).

Health action strategies in the SA communities need to take into account their understanding, willingness to accept and adopt changes given these perceptions and beliefs about health. Reluctance to change may reflect a desire to stay connected with cultural traditions (James, 2004). However, patients can ultimately take control of health, eliminate the notion of inevitability, and become an active partner in their health (Piko and Stempsey, 2002).

## **2.19 Pakistani food practices**

Food and meals have strong symbolic and cultural meaning for the Pakistani family (discussed further in Diet and Women in the SA Community, below). In Pakistan, cooking is perceived as the “women’s job and that cooking symbolises household unity” (Jamal, 1997, p.79). “Collective cooking – a way to foster relationships – created a sense of cultural continuity with the past, familiar food is cooked and shared” (Jamal, 1997, p.178). Food and family meals are strong cultural indicators of links with Pakistan and “home”. Jamal (1997, p.204) continued, “Consumption of Pakistani food in the UK was originally driven by symbolic priorities derived from the original Pakistani environment, without thought for medical consequences”. Guided by the Quran, not just by halal and haram, food is meant be consumed in moderate quantities without indulgence or excess (Abdalati, 1975).

Whilst the Quran indicates what should and should not be consumed (see halal and haram above, p. 41), food in relation to health may or may not be considered by some. Within every culture there are traditional ideas about how diet affects health and that some foods are believed to be “beneficial in preventing and treating particular conditions” (Thomas, 2002, p.563). Pakistanis believe in maintaining a balance in the body with different foods (Werbner, 1979). In Werbner’s (1979) overview of the British Pakistani diet, she described food categories including “hot” food (dry and wet) such as dates, nuts, chickpeas, beans, lentils, coconut, eggs, tea, lamb, fish and chicken, “medium” food (e.g. milk, butter, meat and rice, etc.) or

“cold” food (dry and wet) (e.g. yogurt, psag (a green vegetable similar to spinach), cabbage, apples, oranges, watermelon, pomegranates, bananas, water, etc.).

Other than being described as hot, medium or cold, foods were also described as having other characteristics by Bangladeshis. Bangladeshi participants described foods as having “strong” or “weak” qualities (Greenhalgh et al., 1998a, p.981).

Examples of strong foods included lamb, beef, ghee (clarified butter), white sugar, solid fat or spices providing energy and good health; weak foods consumed perhaps by elderly or children each day included boiled rice or cereals. Thus it seems some traditional beliefs connect food consumed with functioning of the body.

Muslims believe that food is a gift from God, not to be wasted (Fieldhouse, 1996, p.135). However, often large amounts of food are offered to guests who visit a Pakistani home. This is believed to honour them (Mellin-Olsen and Wandel, 2005). Refusal to eat more (another portion) at a social occasion is considered offensive (Thomas, 2002, p.564). Weddings and festivals are also occasions when plenty of food is available (the Pakistani family wants to be seen to enhance its reputation to family and friends (Werbner, 1979) and express care for others (Blixen, Singh, and Thacker, 2006). Plenty of food and drink is perceived to be very important especially snacks, though they are sometimes not considered “real food” (Mellin-Olsen and Wandel, 2005, p.315). During celebrations and holidays there is social pressure to consume fatty and sugary foods and to eat everything served (Khajuria and Thomas, 1992). This contradicts the Islamic notion of eating moderately.

A Pakistani woman who takes pride in her cooking and the food she prepares for her family and guests (Mellin-Olsen and Wandel, 2005) may object to recommendations to use western cooking methods. The way she prepares the meals are passed down through the generations and connect her to her culture and traditions. Her duty and priority is to her family and if her family prefers daily curry with lots of oil, she will want to please them and use plenty of oil. In this context, her cultural duty constrains her from making changes. This is not unique to Pakistani women. European women also reported that her cooking as a “gift” to her husband and family (Sydner, Sidenvall, Fjellstrom, Raats, and Lumbers, 2007, p.376).

Earlier research showed that women “subordinate their own food preferences to those of their partners” and experienced lack of support by their family when new foods were introduced (Nettleton, 1995a, p.54). Campbell and McLean (2003, p.256) found that Pakistani men were “preoccupied with maintaining and policing” English and Pakistani boundaries and expressed “dismay” at Pakistani integration as they believed the (outside) English culture was “potentially corrupting”. With regard to the family meals, incorporating changes undermines the husband’s desire to maintain traditions and cooking methods (e.g. using lots of oil or traditional ingredients in curries and chapati preparation).

## **2.20 SA food beliefs and the body**

SA use diverse ways to express understanding of food and how food relates to the body. For example, food enhances well-being by strengthening the body. Below are other examples as reported in the literature by Greenhalgh et al., (1998a), Jamal (1997), DiabetesUK, Khajuria and Thomas (1992) and Khamis (1996) and others:

- Big bellies in men or women are a sign of wisdom (DiabetesUK)
- Diabetes is a part of old age, God’s will, destiny, it is only mild, or diabetes will go away, is caused by stress, etc. (Greenhalgh et al., 1998a)
- Spices were perceived as the “cause of health problems” (Campbell and McLean, 2003)
- Drinking milk is associated with gaining extra strength, especially having milk and eggs together (Jamal, 1997, p.189)
- Ghee provides extra strength, flavor and represents social affluence (Jamal, 1997, p.191)
- Ghee is cooling, soothing and strength-giving (Khajuria and Thomas, 1992)
- Chickpea flour is believed to be good for diabetes (Khajuria and Thomas, 1992, p.320)



- Diabetes is commonly referred to as “sugar” (DiabetesUK)
- Diabetes is caused by too much sugar (Werbner, 1979)
- Consuming bitter melon, karela, counteracted the “sugar” of diabetes (Khajuria and Thomas, 1992)
- Bangladeshis believe that fish produced blood; rice and ghee are strength-giving (Khamis, 1996, p. 107)

Certain foods were seen by both 2G and 1G women to prevent or cure diabetes. For example, eating (bitter) karela counteracts the effects of diabetes although its cooking preparation was irrelevant (e.g. deep fat frying). UK Gujaratis reported consumption of bitter foods (such as karela) and bitter herbs was a traditional way of managing diabetes, demonstrating deeply embedded traditions with foods (Khajuria and Thomas, 1992).

## **2.21 Diet and Women in the South Asian Community**

This section presents what is known about foods consumed by SA people from two large scale food surveys, the NDNS and HSE. The NDNS provides a snapshot of dietary trends of over 2,000 adults, aged 19 to 64, comparing genders, ages and regions. It does not explain the eating patterns or diets of ethnic minority groups, as they are not included in “sufficient” numbers (Thomas, 2002, p.563). Landman and Cruikshank (2001) consider the NDNS to be the “cornerstone” of UK surveys for food and nutrition trends but acknowledge its limitations.

The HSE is a nationwide cross-sectional survey of adults, ages 16 to 55+. HSE 1999 (Bajekal et al., 1999) was the first Survey with an ethnic boost sample of 9,191 respondents (n=4,392 or 48% were men; n=4,799 or 52% were women) which included some questions on eating habits for SA using a weighted FFQ (an ethnic version). Considered to be the first large-scale survey using different ethnic groups, the Survey included Indians, Pakistanis, Bangladeshis (as well as Chinese and Irish).

Rather than focus on healthy SA eating habits (such as consumption of fish or pulses, etc.), less healthy eating habits were studied (e.g. fried foods, etc.).

However HSE 1999 (Hirani and Primatesta, 1999) gathered data on fruit and vegetable consumption, reporting that 5% of Pakistani women, 7% of Indian women and 12% of Bangladeshi women never or rarely ate fruit. Zannath and Edholm (2004) noted that for Bangladeshis, fruit was not an essential part of their typical diet. For vegetable consumption, 3% of Pakistani women, 4% of Bangladeshi women and 1% of Indian women rarely or never ate vegetables.

Table 2.5 (below) represents extracted data from the HSE 1999 showing weekly fruit, vegetable, salt and fried food consumption comparing Pakistani, Indian and Bangladeshi women (note that in 1999 fruit and vegetable consumption was reported separately; six or more pieces consumed were reported weekly not daily and were not compared to the general population). Other trends were reported but not discussed here.

For comparison, Table 2.6 (below) summarises portions/day for general population women, aged 16+, for fruit and vegetable consumption only between three national food and diet surveys (NFS, 1998; HSE, 2003; and NDNS, 2004)

**Table 2.5 Observed % of South Asian women's eating habits**

<b>South Asian Women (Ages 16+)</b>	<b>Weekly Fruit consumption (fresh, frozen &amp; tinned)</b>	<b>Weekly Vegetable consumption (fresh, frozen &amp; tinned; excludes chips)</b>	<b>Salt consumption (unspecified amounts) (Women, Ages 35-54)</b>	<b>Weekly Fried food consumption</b>
	<b>Observed %</b>	<b>Observed %</b>	<b>Observed %</b>	<b>Observed %</b>
Pakistani	24% § 9% *	11% § 11% *	96% ◇ 19% ‡	3% § 66% †
Indian	28% § 9% *	28% § 4% *	97% ◇ 15% ‡	2% § 55% †
Bangladeshi	16% § 18% *	35% § 8% *	98% ◇ 20% ‡	8% § 60% †

§ ≥ 6 times/week; \* ≤ 1time/week; † 1-6 times/week; ◇ salt added during cooking; ‡ salt added at table after tasting

Data extracted directly from HSE 1999, Chapter 9, Tables 9.1 and 9.2, p.237-238.

Table 2.5 presents a representative sample comparing South Asian women in England and an observed percentage of their eating habits and frequency of selected foods consumed. In 1999, fruit and vegetable consumption was reported separately and on a weekly basis. This Survey compared SA diets to each other and not to the general population.

**Table 2.6 Fruit & vegetable consumption comparison between General Population from three UK surveys**

<b>NFS 1998</b> <b>GB Household§</b> <b>Men, Women and Children</b> <b>Estimated Average portions/day‡</b>	<b>HSE 2003*</b> <b>General Population Women,</b> <b>ages 16y+</b> <b>Mean Portions/day</b>	<b>NDNS 2004**</b> <b>General Population Women,</b> <b>ages 19-64y</b> <b>Portions/day</b>
5.5	3.6	2.9

§ Household defined as a group of people living in the same dwelling and sharing a common catering arrangement (NFS 1998, p. 154).

‡ NFS 1998 (Thompson et al., Table 2.10, p.13) reported random sample data from 6,000 private households of men, women and children, comparing weekly food consumption (and expenditure). They recorded their data in a food diary. The NFS 1998 showed a weekly consumption of vegetables (including potatoes at 826g/day) was two times more (2,005 g/d) than fruit (1,090g/day); therefore  $2,005 + 1,090 = 3,095 \div 7 \text{ days} = 442\text{g/person/day}$  (including potatoes). Using the calculation of  $400\text{g}=5 \text{ portions}$  (NDNS 1999, p.227), this computes to be 5.5 portions of fruit and vegetable consumption/day. The collected data for the General Population Women did not use the same units therefore it is not possible to do a direct comparison between the three Surveys.

\*HSE 2003, General Population Women, aged 16+; sample design used was a multi-stage, cluster sample.

\*\*NDNS Executive Summary, 2004, p.14. Total number of subjects  $n=2,251$  (completed dietary interview); 1,724 (833 men and 891 women) completed 7-day dietary record; 5% of total respondents were either vegetarian or vegan (of those numbers 5% were women and 2% were men).

HSE 1999 (Hirani and Primatesta, 1999) was insightful and important as it was the first time that SA groups (men, women and children), on a national level, completed a seven-day food record about their diet. Data emerged, when comparing Indian men and women, commonly vegetarian Hindus, that 14% of Indian men and 16% of Indian women rarely or never ate fruit; 8% Indian men and 5% Indian women rarely or never ate vegetables (compared to 2003 HSE of the general population which reported 8-9% men and 6% women never consumed fruits and vegetables). The BHF reported that Bangladeshi and Pakistani adults consumed the least amount of fruit and vegetables, despite endorsements to consume fruit and vegetables by many health organisations, starting in 2002, to eat five portions of fruit and vegetables daily (e.g. BDA, 2006; NICE, 2006; NHS, 2010). Khamis (1996) reported in qualitative research that Pakistanis were not as likely to eat fruit as a snack and when they chose fruit it was seasonal and expensive (i.e. mangoes and pomegranates). Cost and availability appeared to play a part in their food choices.

For the general population (ages 16+), HSE 2003 (without an ethnic boost) reported that men had a high fat diet and tended to add more salt to their food compared to women. According to the 2002 NDNS, fruit and vegetable consumption for women in the general population, ages 50-64, 78% reported to eat less than five portions of fruit and vegetable per day (or a mean average of 3.8 portions/day; SD=2.20) (NDNS, 2002, p.46). Other surveys have also shown that generally UK women eat slightly more fruit and vegetables than men (26% versus 23%). Table 2.6 (above) compares data from women in the general population in three national surveys (NFS, HSE and NDNS) of daily fruit and vegetable consumption, showing the different results from 1998 to 2004.

The follow-up study to the HSE 1999, with an emphasis on behavioural risk factors for CVD (including drinking, smoking, eating, blood pressure and diabetes), and with a boost sample, was conducted in 2004. HSE 2004 directly compared SA fruit and vegetable consumption with the general population (HSE, 2009, p.277). SA fruit and vegetable consumption increased compared to 1999 data. According to the 2004 data, 32% of Pakistani women, Bangladeshi women (at 28%) and Indian

women (at 36%) consumed five or more portions of fruit and vegetables daily. Pakistani women reported consuming slightly more fruit and vegetable compared to general population women. Table 2.7 (below) compares three SA groups to the general population (HSE, 2004).

**Table 2.7 Fruit & vegetable consumption comparison between SA women & General Population Women**

<b>HSE 2004* Women aged 16+</b>	<b>Fruit and Vegetables Mean portions/day</b>
Pakistani	4.0
Indian	4.4
Bangladeshi	3.6
General Population	3.6

\*HSE, 2004, Chapter 9, Table 9.1, p.277.

Table 2.7 compares self-reported data collected over a 24-hour period, the differences between fruit and vegetable consumption between SA women and general population Women. Pakistani Women reported consuming slightly more portions/day than the general population Women. All women eat less fruit and vegetable than the recommended five portions/day.

## **2.22 Foods commonly consumed by South Asian communities**

“...Food is a powerful vessel of shared traditions, a direct pipe line into the soul of a community”  
(Katz, 2009, p.76).

In 1992, Khajuria and Thomas wrote that dietitians were not familiar with SA diets, and the lack of consumption data at the time contributed to this. Some British Pakistanis also contributed to this lack of understanding as food eaten within the household is considered private (Jamal, 1997).

Later by 2001, a study focused exclusively on Muslim dishes, at last creating a better understanding of meals consumed. In Table 2.8 (below) shows examples of amounts of fat contents in different foods for Ismailis, Pakistanis and Bengalis (Kassam-Khamis et al., 2001).

**Table 2.8 Muslin dishes with the lowest and highest fat contents**

	<b>Ismaili</b>	<b>Pakistani</b>	<b>Bengali</b>
<b>Dish; Lowest fat content/100g</b>	<b>Kadhi †</b> 3.1g/100g	<b>Roti/Rotli/Chapati§</b> 0.9g/100g	<b>Roti/Rotli/Chapati</b> 0.4g/100g
<b>Dish; Highest fat content/100g</b>	<b>Keema Curry*</b> 13.7g/100g	<b>Keema Curry</b> 26.8g/100g	<b>Keema Curry</b> 29.1g/100g

Data extracted from Kassam-Khamis, Judd and Thomas, 2000, Table 8, p.195.

† Ismaili kadhi: low fat yoghurt, onions, chickpea flour, and vegetable oil (vs. Pakistani kadhi uses corn oil); not listed as Bengali dish.

§ Wheat-based unleavened bread.

\*Minced lamb curry.

Table 2.8 shows the different fat contents found in the same recipes for three Muslim groups. Again, these differences represent the heterogeneity within foods between Muslim groups.

The key findings from seven quantitative studies (including Kassam-Khamis et al., 2000), representing different SA groups and religions in the UK and internationally, show further differences between and within the groups (Appendix H). Besides dietary patterns, issues around social support within the community were reported by Jonnalagadda and Diwan (2005).

Despite a greater understanding of diets, the studies reported in this literature review concurred that more work on SA health promotion needed to be conducted. The diversity of SA groups shows that each should be studied separately due to differences in foods and ingredients consumed. Adopting a healthy (more western) diet does not mean rejecting traditional foods. Handbook and trainer guides described a typical Bangladeshi diet, by suggesting ways it can be healthier and how to implement the changes. These and other recommendations for adapting the Pakistani diet to be healthier can be found in Appendix L.

This section, so far, has presented a brief overview of quantitative aspects of the SA diet. In order to meet the aims and objectives of the current research, the literature review now needs to examine the relationship between health beliefs, behaviours and dietary patterns in a more meaningful way from a qualitative perspective. This section further presents, though limited, some qualitative research conducted in the UK and internationally, that further examines SA eating behaviours, perceptions, and shopping habits and uncovers differences regarding food preferences between parents and children.

Khajuria and Thomas (1992, p.315), in a qualitative study of 28 London-based diabetic Gujarati men and women (n=28), explored traditional (Ayurvedic) principles in relation to diabetes. These participants believed that the “cause of their diabetes was likely to be explained in terms of stress, age, overweight or eating a faulty diet”. In a Scottish qualitative study with Muslims, Hindus and Sikhs (and atheists) participants, Wyke and Landman (1997) highlighted some other SA dietary differences such as the frequency of consumption of traditional versus western foods, and the differences in the range of foods eaten. Six focus groups were followed-up with 45 individual interviews of SA participants (n=93) living in Scotland (participants were differentiated by place of birth, e.g. UK, India, Pakistan or other). The participants reported a wide range of foods consumed, emphasising vegetables, pulses and cereals. They ate not just curries but a variety of cuisines and were “keen to show the healthiness of the SA cuisine” (Wyke and Landman, 1997, p.32). They



reported that traditional SA evening meals were consumed at least three to four times a week, for which the adults expressed a preference, but they also reported they were just as likely to eat Chinese, Italian, and Greek food. Some younger participants preferred British food while others preferred SA food. Differences between 1G and 2G eating habits and what they each considered to be “healthy” (versus junk food) or “proper food” were also discussed. Further insight into traditional versus “English” food choices (synonymous with convenience food for the participants) emerged from this small cohort of Scottish SA. Wkye and Landman (1997) reported on the wide variety of foods eaten by their participants, making it impossible to stereotype their participants.

In other qualitative research, Jamal (1998, p.204) compared 36 British Pakistanis (n=4 women) in seven English households. The participants reported that Pakistani food “cooked in the traditional style with traditional ingredients was believed to be fatty, heavy and unhealthy”. Other SA women in Manchester also reported they were not always allowed or encouraged to use less fat in cooking (Bandesha and Litva, 2005). This qualitative study, with 14 SA women (Indians, n=5; Pakistanis, n=5; and Bangladeshis, n=4), found that, in their opinion, they were unlikely to adapt healthier lifestyle habits due to resistance within the family (e.g. from husbands) (Bandesha and Litva, 2005). Inter-generational differences and influences were noted when examining food habits within Scottish SA families (Wyke and Landman, 1997).

Further qualitative research uncovered dietary differences and preferences between 1G and 2G in other UK SA families. Bi-children introduced “foreign” British food and other cuisines, adding new influences to the household (Willgerodt, Miller, and McElmurry, 2002). Inter-generational dietary differences and influences are important since they underpin eating behaviour. The differences between parent’s traditional eating and children’s westernised foodways were reported. Eating habits were changed because of these differences. With regard to 2G, born in the UK, Khamis (1996) found that they were less strict with following religious food laws as

compared to older Pakistanis and Bangladeshis. For the younger generation who introduced new foods to the family, faith did not always dictate what they should eat.

Outside the UK, other qualitative research studying dietary acculturation of SA (Indians) living in Newfoundland, reported that children had different eating patterns than their parents while husbands and wives had similar dietary patterns (Varghese and Moore-Orr, 2002).

In his qualitative study using participant observation and in-depth interviews, Jamal (1998) uncovered different and important generational differences in UK British Pakistanis (n=37; mostly male) in Bradford. He found that 1G mothers tried English food with their children but perceived it to be “bland, foreign and full of artificial ingredients” but also described traditional food to be “tasty but oily and problematic” (Jamal, 1998, p.224). For the 1G, they felt “empty” unless they ate a “proper” traditional meal, which normally included chapati and salan (curry). Yet the 2G participants found English food to be convenient and felt it helped them to conform to the UK culture as well as experiencing independence from parental control. Foods introduced by children created “symbolic tension” and created “conflict within most households” while the family tried to maintain traditional habits (Jamal, 1998, p.226). Others described this dynamic within the household as the “democracy of the palate” (Narayan, 1995, p.76). Another dynamic is created by 2G women often living with their mothers-in-law who exert a “powerful influence” on the traditions within the family (Parsons et al., 1999, p.118). A household of three generations with different preferences and tastes must provide tension and conflict.

Table 2.9 (below) summarises how the British Pakistani men and women, 1G and 2G, perceive their food (Jamal, 1998). For the 1G men and women, “English” food was perceived to be light and healthy but not for the 2G (Jamal, 1998).

**Table 2.9 1G and 2G British Pakistanis perceptions of traditional vs. English food**

<b>Participants* (2G &amp; 1G)</b>	<b>Pakistani (traditional) food perceived as</b>	<b>English food perceived as</b>
2G Men and Women	Tasty, spicy, filling  Reflecting maternal love, family unity and conformity to culture  Routine, ordinary	Convenient, fast foods  Tasty and filling  Reflecting adventure and independence
1G Men	Tasty, original, spicy  Reflecting conformity to culture and family  Heavy and problematic	Bland, foreign, non-filling  Snacks, but not meals  Light and healthy
1G Women	Tasty, original, spicy  Reflecting conformity to culture and family	Foreign  Light and healthy  Reflecting conformity with children

\*Extracted from Jamal, 1998, Table 1, p.223.

Table 2.9 presents different perceptions between 1G and 2G men and women of traditional versus western food, without listing or describing these foods.

With regard to food shopping, Parsons et al. (1999) compared 1G and 2G Pakistani Muslims in Bradford. This qualitative study found that the 1G's inability to speak English meant less frequent visits to stores where European foods were sold and also less contact with the English-speaking population. Food shops are an important environment for making informal observations about food availability and choice. They are seen as more than just a place to buy food, but are underpinned with cultural mores (e.g. freedom of movement for women within the store but not in the

community, etc.). Manekekar (2005) described how deeply rooted gender issues arise within Asian Indian food shops in California, USA:

For some women, the social space of Indian grocery stores represents an extension of the surveillance exercised within the community. The stores provide opportunities for women whose mobility is otherwise curtailed. Men feel their wives are unlikely to do anything inappropriate while in these stores...suggesting that they also represent an extension of patriarchal control... Indian grocery stores invoke and produce powerful discourses of home, family, and community – all of which are contested and all of which are gendered in important ways (Manekekar, 2005, pp.209-210).

This chapter reviewed so far what has been reported in the UK (and other locations) on some SA eating consumption patterns (for fruit, vegetables, fried foods and salt) in national health surveys and briefly covers some shopping habits. Focus remained on unhealthy eating patterns rather than healthier habits (e.g. consuming ginger, garlic and onions, etc.). Diversity within and between SA groups was examined and the influences and dynamics within the SA family. Quantitative and qualitative research, though limited, begins to describe some of the issues within this household. Identity construction needs to be explored further in order to help explain health problems facing SA groups.

## **2.23 Social construction of the Pakistani Muslim woman: her identities**

### **2.23.1 The Islamic identity**

“Islam is a code of life, *a living force* manifest in every aspect of human life.”  
(Abdalati, 1975, p.106)

This section looks beyond the nutritional habits of the Pakistani women. Her lifeworld is examined, according to the literature, and her identities are described

separately (below). Although born in the UK, the 2G participant's "Britishness" is present and strong but for the purposes of this study, she is studied within her Pakistani home life.

This stage begins with understanding when an individual becomes a Muslim. In Islamic tradition, to be part of the Muslim community requires that a Muslim man whisper in both ears of a newborn baby ("Azaan" for the right and "Akamat" for the left) who then is first and foremost a Muslim. In some cases, the newborn Muslim has a dab of honey put on its tongue, the first taste is of honey. *"The founder of Islam, the prophet Mohammad gives honey"* (2G British Pakistani).

The worldwide community of Muslims (or the Ummah) is unified by faith. This notion of collectiveness is fundamental to an underlying behaviour and belief system but the "individual is responsible for the common welfare and prosperity of his society" (Abdalati, 1975, p.124). Being a good Muslim is as much about behaviour (e.g. modesty, virtue, strong family values, etc.) as it is about beliefs. The Quran, by providing the "essence of the Islamic world view", stresses the value of social organisation through community life and meetings at a Mosque (De Leeuw and Hussein, 1999). Muslims see themselves as a single body of people, regardless of country of origin. The Ummah represents that "humankind should live as one unified society, not separated by ethnicity, gender or nationality" (De Leeuw and Hussein, 1999, p.350). Marriage and family life are an essential and sacred part to this overall sense of community. The family unit being the "nucleus of Islamic society" plays an important part in maintaining the roles of men, women and the extended family (Importance of Marriage in Islam, 2007) and are "central to the Islamic system" (Abdalati, 1975, p.114). For the women, they are importantly assigned the "duty" of looking after the household and act as "culture-bearers" (Esposito, 2002). Thus their familial duties within this Islamic collectivity, dictate behaviour, maintaining and importance of their roles.

With regard to health, the Islamic belief of dhimmah is a contract of protection, which guarantees life, body, property, freedom of movement and religious practice, submission to Islamic rule (Oxford Dictionary of Islam, 2003). While Muslims believe that the body is “protected”, the woman cannot “help her build”; she is expected to keep her modesty and not display her body to anyone other than to her husband (Importance of Marriage in Islam, 2007). For the woman, in particular, loses a sense of “self” within the context of her Islamic life. Expectations of being a good wife, mother and housekeeper, to cook and provide traditional food may confine her. However her primary duty is to her family not just to herself. In a sense, the woman is given over to Islam, family and community which can lead to “complex and often complicated” everyday lives (Grewal, Bottorff, and Hilton, 2005, p.259).

Earlier research described influences as different layers of identity and structures. Resnicow, Baranowski, Ahluwalia, and Braithwaite (1999, pp.11-12) defined outward physical characteristics which included food but also language, music, clothing, locations, etc. as “surface structure” and the more obscure or elusive characteristics of cultural, social, historical, environmental and psychological forces as “deep structure”. The “dimensions of ethnicity” (Nazroo, 1998, p.726) look beyond the limited western perceptions or “surface structure” which may only “see” her language difference, her manner of dress or her waist circumference. By walking “a mile in my shoes” (Cassidy, 1994, p.190S) and as a way to study of cross-cultural comparisons, this study begins to uncover issues of “deep structure” of the Pakistani woman.

### **2.23.2 Construction of Pakistani identities (the self, the family & environment)**

The Pakistani identity was strongly linked to and not easily separated from their Muslim identity. Certainly the Muslim faith is an important component within the Pakistani identity while Pakistan is “home”, the spiritual home.

Other research concurred with these beliefs as a way to explain character construction. The social psychologists, Campbell and McLean's (2003, p.251), conducted a qualitative study of 26 British Pakistani men and women, aged 15 to 67 years. The participants described their identities as "layers of differences" connected to "language, dress, and culture, the behaviour of women, religion and diet". Importantly also the Campbell and McLean (2003, p.252) participants described the "strong sense of mutual responsibility" within the Pakistani family. The authors went on to describe the Pakistani family as "the central building block" to their identity and "safeguarding the modesty of female family members", contributing to the family identity (Campbell and McLean, 2003, p.252). The participants described a type of isolation, as they were discouraged to participate in "wider social life" (not being allowed to "roam") as an element of Purdah (Campbell and McLean, 2003).

Urban or rural living, as important environmental factors, relates to literacy, weight, education levels and languages spoken at home. Mellin-Olsen and Wandel (2005) collected information from their participants about where they originated in Pakistan, either rural or urban areas, without identifying the exact locations (20 out of the 25 participants stated they came from rural areas). Werbner (1999) described the contrasts between Pakistani urban middle classes, who frequently provided their children with an English education versus the rural classes who commonly did not. Health and UK climatic conditions were linked previously in British Bangladeshi participants, who believed lack of sweating, due to the cold climate, lack of physical labour and immigration were probable causes of diabetes (Greenhalgh et al., 1998a). These participants believed that diabetes would "improve or disappear" once they returned to a hot climate (Greenhalgh et al., 1998a, p.981). Pakistanis living in Norway associated a cold climate and a lack of sweating with digestion problems (Mellin-Olsen and Wandel, 2005).

### **2.23.3 The individual versus the Ummah: Choices**

The present research focuses on the individual identity of the Pakistani women and how she is placed within her Muslim, Pakistani and English worlds. Her lifeworld is based on many (and strong) influencing, perhaps conflicting identities. Western

trained health professionals focus on the individual whereas other societies emphasise the group where the group itself is more important (e.g. China) (Cassidy, 1994). This was found to be consistent with the research findings of Campbell and McLean (2003) where the family took precedence over individual members.

For the older Pakistani women particularly, the “self” did not appear to be as important as the Muslim collectiveness. The “self” within the context of the family is not considered (in other words thinking of oneself) or expressing oneself. Researchers noted this in Pakistani participants, living in Norway, who did not express their opinions, instead presented a “common view”, so as to not be “disloyal” to the family (Mellin-Olsen and Wandel, 2005, p.330).

Regarding her individual choices, the Pakistani women may not feel she has choices regarding her health due to group pressures, societal and cultural influences (Lucas and Lloyd, 2005). Within this context, there might be questionable scope for empowering these women to help them believe they can do something about their health. Bearing in mind her family obligations, empowerment and choosing health are not straightforward options for her. Yet the “commercialization of health” expects “health consumers” to have a healthy lifestyle (Nettleton, 1995a, p.49) and to be able to choose it (e.g. DH *Choosing a Better Diet*, 2005). For example, as a healthy lifestyle choice, using the gym to exercise to improve one’s health is perceived as selfish in SA society (Sriskantharajah and Kai, 2007).

Countering the collective spirit of community, the HBM focuses on the individual’s “perceived susceptibility” to an illness as well as to the “perceived severity of the consequences of the illness” (Connor and Norman, 2005, p.8). When combined, these will determine the course of action taken by an individual if they believe they are susceptible and motivated. The HBM incorporates perceived barriers and benefits to their behaviour as well as cues to action and physical symptoms. Importantly, self-efficacy, the confidence to “engage in a specific behaviour”, was added later to the HBM as it significantly indicates for initiation and maintenance of



a behaviour (Baranowski et al., 2003, p.275). So within the HBM, the emphasis is primarily on individual behaviour.

## **2.24 Food Transitions and a Pakistani Diaspora**

“Dietary adaptation to a new culture is complete only when immigrants begin routinely eating the staples of a host population – this may take a very long time”  
(Koçtürk-Runefors, 1991, p.190).

The literature review thus far shows that food and culture are strongly interrelated and complex within Pakistani (and other SA) households. Food choices and habits, as important aspects of cultural influences, represent a paradox as culture and food choice should not be considered “rigid” (Bush et al., 1997, p.24). For some Bangladeshis living in Britain, researchers found a strong desire to cling to cultural habits. Khanum (2001) described the UK Bangladeshi village and the desire to cling to their norms, and an apparent reluctance to be assimilated into the host country. All of these combined reflected a “perceived uncertain future in England” (Khanum, 2001, p.502). Kassam-Khamis et al. (2000, p.185) wrote that while foodways were always changing; they were not easily changed. Food allows people to stay connected with their country of origin, giving a sense of belonging and distinguishes one group from another (James, 2004). Strict religious beliefs and taboos or the decline of beliefs, length of stay in a host country (therefore exposure to different foods) and perhaps forced or voluntary migration affects choice (Khamis, 1996). Immigrants may view themselves as merely “sojourners or new citizens” and their orientation towards the future will define how they adapt to their new country (Thomas, 2002, p.559).

Unlike ethnic identity, “culture is not an autonomous, static feature in an individual’s life” and “cultural traditions are historically located”, occurring within the context of time, place and for each person (Nazroo, 1998, p.723). A SA living in the UK is described as having a culture within a culture. This process is defined as

acculturation. Acculturation and assimilation (defined as unidirectional by Jamal, 1998) describe the change processes that immigrants undergo once they leave their country of origin and adapt to a new country (Jamal, 1996). Many changes take place during this process, particularly in dietary patterns. The host culture is not automatically adopted. Acculturation can be direct through exposure to the host country (e.g. friendships, children in school etc.) or indirect (via the media) (Nazroo, 1998). Many researchers have attempted to explain the process of change after migration.

Regarding diet, the Koctürk-Runefors (1991, p.189) model suggests that soon after migration (no specified period of time given) certain “accessory” foods change. For migrants, these foods tend to be the “sweetest and fattiest” foods and often are not considered “real food” (e.g. nuts, sweets, fruit and drinks). Importance is attached to “staple” foods (perhaps rice or chapati for the SA), are linked with identity, and are slow to change, if ever. Evening meals are often the most resistant to change and have “culture-loaded” value (Koctürk-Runefors, 1991, p.191). Taste was usually important in food selection too.

Satia-Abouta, Patterson, Heuhouser, and Elder (2002) described dietary acculturation as being multidimensional, dynamic and highly complex. Thus dietary interventions and health promotion requires an understanding of the factors that predispose and enable acculturation to occur. Holding onto traditional healthy eating patterns (depending on the local food supply) needs to be encouraged while adopting healthful eating patterns from the host country. Simultaneous assessment of the degree of dietary acculturation was advised. Satia-Abouta et al. (2002) suggested asking clients if children and/or parents lived at home ensuring that dietary advice did not contradict religious beliefs.

On a larger scale, the nutrition transition, which particularly affects populations in developing countries, was defined as a process whereby eating habits evolved from a traditional, high-fibre, low-fat diet towards a diet more westernised, high in animal fats and low in fibre (and possible over-nutrition or micro-nutrient inadequacies).

WHO and FAO simply defined nutrition transition as “change in diets, patterns or work and leisure” (WHO/FAO Expert Consultation, 2003). Vorster, Bourne, Venter, and Oosthuizen (1998, p.341) reported that this transition happens in stages and nutrition changes, underlying “many of the public health problems’ today, go hand-in-hand with urbanization”.

WHO/FAO (2003) explained that the causes of NRCd were complex, multi-factorial and were perhaps part of the nutrition transition (where traditional diets became more “westernised”). Changes also occurred in work and leisure activities. The wider spectrum of economic, social, political and environmental influences affect food consumption (WHO/FAO, 2003) perhaps beyond the four influences reported by Simmons and Williams (1997) (See Appendix H).

It is complex to put food in the context of these influences and processes yet requires an understanding. Narayan (1995, p.77) wrote that there are difficulties for “westerners” attempting to acquire knowledge and understanding of the cultural context of SA food. This may be because members within the “ethnic food culture” might not be any more knowledgeable in explaining the phenomenon of their cultural food. Meals eaten away from the home take on a different significance, within a socio-cultural context. For example, Narayan (1995, p.76) reported that, in India, the home is where women are in charge of preserving “cultural purity” but away from home the woman has no control of her family food intake and caste food rules were not always strictly observed. This points to the significance of the woman’s role and influence within her home but outside her home other acculturative influences take over.

As well as food eaten away from home, each meal takes on a different significance for family members, culturally and socially. This was observed in UK Muslims where changes were seen in breakfast, described as “least important meal of the day” (and often missed on prayer day, Friday) while traditional evening meals were maintained (Khamis, 1996; Godson, Williams, and Cade, 1999). Pakistanis living in Oslo, Norway, reported that dinner takes on a greater meaning compared to lunch, traditionally the most important meal in Pakistan (Mellin-Olsen and Wandel, 2005).

Section 2.25 (below) uncovers more information about SA foodways of a Pakistani Diaspora residing in Oslo, Norway, and draws comparisons with UK Pakistanis. This qualitative research brought new issues to light regarding dietary and cooking patterns for this particular group of Pakistanis (Mellin-Olsen and Wandel, 2005).

## **2.25 Pakistanis living in Norway**

Understanding and exploring eating patterns of Pakistanis in Oslo is important as they represent the largest immigrant group in Norway (Syed et al., 2006), some arriving in the 1970s (Kumar, Meyer, Wandel, Dalen, and Holmboe-Ottesen, 2006). Mostly, they live in Oslo (migrants make up 7.3% of total Norwegian population) (Statistics Norway, 2003). Two quantitative studies about other SA living in Oslo are reported in Appendix H.

Mellin-Olsen and Wandel (2005) used thematic focus groups of 25 Pakistani women who had lived, 18 years (on average) in Oslo. New and evolving meals patterns were reported after migration to this new country. These researchers compared their results to the Koctürk model for dietary change in immigrants. Koctürk-Runefors (1991) hypothesised that staple food consumption remained the same long after immigration compared to accessory foods, which changed soon after migration.

The Mellin-Olsen and Wandel (2005) research focused mainly on changing meal patterns, new types of foods consumed, some psychological aspects (e.g. loneliness, stress etc.) and some social aspects (e.g. cost of food, etc.). For this small cohort of Pakistani women in Oslo, meal patterns changed in three ways (compared to their life in Pakistan): fewer hot meals, more irregular meal patterns, and larger meals later in the day. One participant stated, *“In Pakistan we did eat two to three hot meals per day, but there we sweat much more and it was much easier to digest the food”* (Mellin-Olsen and Wandel, 2005, p.318).

Norwegian dietary influences included consumption of more bread (compared to traditional chapatis), higher consumption of fish (fish was less available especially in

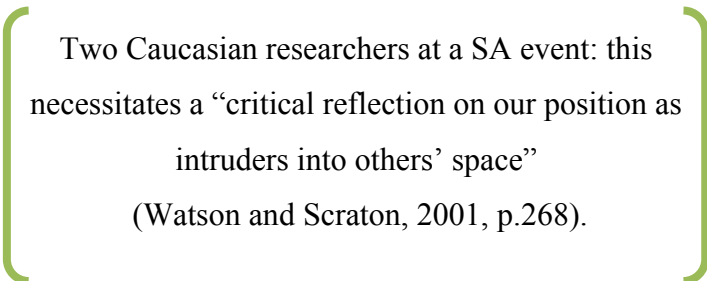
rural areas of Pakistan) and increased snacking (e.g. sweets, cakes and soft drinks). Some participants reported switching from cooking with ghee to vegetable oil. Fish preparation included marinating, frying, ready-made varieties, such as fish fingers or boiling (Mellin-Olsen and Wandel, 2005, p.320). Participants reported that family foods were more influenced by children as smaller extended families meant fewer adults around the table. Children “dictating” family food patterns were observed previously (Crossley, 2004, p.238).

For this Norwegian cohort of Pakistani women, health promotion was learned from different sources such as doctors, the media, children and other women with traditional viewpoints on health and disease. They were concerned about being overweight, how it related to appearance, and wanted to learn more about health and nutrition. The women explained weight gain because of their lack of physical activity and the cold climate in Norway (Mellin-Olsen and Wandel, 2005). A sense of conformity was noted in these women’s replies as they presented a “common view, instead of single opinions” (Mellin-Olsen and Wandel, 2005, p.330). This research was important in that it uncovered many important issues on eating patterns and adaptations for Pakistani women living in another European country; however, a limitation was that the women had previously participated in the Oslo Health Study (thus the participants were probably more informed than other Norwegian Pakistanis who did not participate) and the cohort did not include stay-at-home women.

## Chapter Three: Methodology

This chapter presents a literature review on qualitative methodologies. First, it explores what other research reported on researching SA participants by white researchers (in a predominately white culture) including a portrayal of entering the SA home to conduct the research. This is relevant to this study as a white researcher is reporting the data from her objective perspective and conducted some of the interviews in the homes. Other than defining this as a limitation, this allows a different outside perspective of the meanings.

### 3.1 Researching South Asians



Two Caucasian researchers at a SA event: this necessitates a “critical reflection on our position as intruders into others’ space” (Watson and Scraton, 2001, p.268).

While some researchers considered “sameness” in researching as important, a non-SA researcher allows for a different perspective in understanding the complexities of the SA society and traditions. Undoubtedly issues around food and habits to a non-SA researcher are not immediately understood. Conversely, this different perspective requires questions to be asked of their meaning. In a review paper of sports and leisure activities from a feminist perspective, Watson and Scraton (2001, p.266) (two Caucasian researchers) wrote that not enough research focused on SA women, was “stereotypical” and lacked the incorporation of the women’s voices. They continued that “gaining access to SA women in the UK is a sensitive issue given the misrepresentation that often occurs” (Watson and Scraton, 2001, p.267). These authors wrote extensively about having to confront their own “whiteness” when researching SA women and asked themselves how much they were taking (i.e. using) from the women in the research process. Watson and Scraton (2001, p.274) believed they needed to contribute by giving back to their participants.

Two perspectives add value to the interpretations. Bhopal (1995, p.160) wrote that “when the re-searcher and the re-searched operate from shared realities, there may be

a tendency to take too much for granted”. Familiarity of identity may lead to research “blindness” (Bhopal, 1995, p.160), overlooking or missing certain aspects, and the well-quantified issue of maintaining a distance while not developing a close rapport with the participant (Oakley, 1981). The SA participants, for fear of disclosing too much private information from their “closed” world, might only provide “socially desirable” views to the “outsider” (Bhopal, 1995, p.156) (this could also be explained by the Hawthorne effect or the researcher-respondent interaction; Spinewine et al., 2005). Some SA respondents want to be seen in a favourable light, providing “socially desirable answers” Bhopal (1995, p.156) while Europeans and Americans are more comfortable being questioned (Cassidy, 1994).

Bhopal (1995) believed that qualitative data with highly valuable “sociological understanding” might only be obtained when researcher/participant “bond” on some level. Yet sameness can cause distraction when, for example, as SA interviewing SA, appropriate (traditional) dress, hairstyles, and ornaments were essential so as not to offend the participant (Bhopal, 1995, p.159). Sameness creates distortions, reflecting the experiences of the researcher rather than the participants (Bhopal, 1995). Coming from a different ethnic group eliminates these possibilities.

### **3.1.1 Intrusion**

“Issues of intrusion based on racial identity are further enhanced by physical markers of difference in which white women enter spaces of Asian women.”  
(Bhopal, 2001, p.283).

As a white researcher, there is an element of intruding into the “closed” space of the participant particularly if interviews are conducted in the home. This intrusion was reported in other research. Bhopal (1995, p.157) wrote that “outsiders who do not identify with the group will be viewed with suspicion and seen as a threat in that they may disturb” members of the community and “will question what it is the outsider wants”. This suspicion applies to researchers from other SA communities as they are also viewed as outsiders (Bhopal, 1995).

The inside and outside Pakistani spaces were defined as private or public spheres by social researchers, Campbell and McLean (2003). The private sphere was for family and friends (i.e. own kind), were “sought and valued” and were seen as “positive, binding and strengthening” (Campbell and McLean, 2003, p.255). The public sphere included their educational environment, public world and friendships with other ethnicities. In their qualitative research with men (n=26) and women (n=14), ages 15 to 67 years, Campbell and McLean (2003, p.255) found that older Pakistanis do not commonly have any “interaction with white people”, which extends to limited contact with neighbours. The older participants explained this as trusting other SA, those who could “understand their culture”. Younger Pakistanis had a clear sense of “having a stake in society in England” while maintaining a connection to Pakistan. The participants described England as their material and professional “home” and Pakistan as their “spiritual and moral home” (Campbell and McLean, 2003, p.256).

### **3.1.2 Recruitment of participants by SA and non-SA researchers**

Factors that hindered recruitment of SA participants was reported. Bandesha and Litva (2005, p.241) found that SA populations, as “marginalized communities”, were not always willing to participate due to language issues and cultural sensitivity. Lawton, Admad, Hanna, Douglas and Hallowell (2006, p.44) reported that “recruiting members of ethnic minority groups can be difficult and time consuming”. Others suggested that these groups were probably unstudied because of difficulties arising from language and the health professionals “lack of appropriate knowledge” (Bush et al., 1997, p.21). For other researchers it was found that gaining consent and trust of the community was imperative before participation was considered (Kassam-Khamis et al., 2000).

Prior to recruitment, Kassam-Khamis et al. (2000, p.186) sent a letter about the research preceding their door-to-door visit to the Bangladeshi homes. They noted that some participants were suspicious of the intentions of the researcher (a SA) and needed reassurance that the “study had no relation with the Local Authority or Home Office”. Once assured, 60% agreed to participate. Other SA women reported that



they believed that research and being interviewed was a white and western process (Bhopal, 1995).

Researching SA was reported in the literature to be complex because of differing ethnicity between the researcher and the participants and entering the closed environment of the SA home, creating suspicion. The SA might not consider being involved in research as worthwhile or benefitting them thus finding willing participants could prove to be difficult.

### **3.1.3 Purposive recruitment**

Purposive sampling, used in qualitative research, is a recruitment technique whereby participants are found either through personal contacts, one person leads to another, known as “snowballing” or recruiting volunteers directly from centres. Campbell and McLean (2003, p.250) reported that purposive sampling was necessary in order to access hard-to-reach Pakistani participants. Housebound SA have been excluded in some research due to the increased “cost and time associated with their inclusion” (Johansen et al., 2009, p.864) or were deemed “hard to reach”, labelling all Muslim women as inaccessible (Koestlé, 2007). Possibly this term alluded to their level of openness or their physical presence in the community. Hard-to-reach is not a “pejorative term” but is “health service reality” (Hawthorne, 2001, p.373). Some participants are voluntarily housebound (e.g. they may not drive) or involuntarily (e.g. their husbands may not allow them to leave home). Other researchers have reported that accessing some SA women is a challenge (e.g. Beishon and Nazroo (1997); Bandesha and Litva (2005); Kassam-Khamis et al., (2000), etc.). This inaccessibility means less diverse data particularly if participants are non-English speaking. The SA translator assists with not only accessing the house-bound participants via her contacts. Phelan and Parkman (1995, p556) described using an interpreter in health visits with a doctor and patient. The interpreter must be as “invisible” as much possible as his/her presence will change the dynamics of the interview.

Money incentives were not used to encourage participation in this study but in other qualitative Pakistani research in Oslo, Norway, participants were offered money to attend four focus groups sessions (a total of NOK800 or US\$100; Mellin-Olsen and Wandel, 2005) and sign an agreement. In the current research, money was not allocated for this expense, but during the focus groups held in the centres, fruit was provided as a small token of appreciation for their time and effort.

Recruiting as many volunteers as possible can be achieved until response repetition or data (or theoretical) saturation occurs. Within phenomenology, the norm is to conduct in-depth explorations with fewer than ten participants (Polit, Beck and Hungler, 2001), so a study with 15 or more participants allows for less detailed contributions from some individuals. Recruitment ceased when data saturation or data repetition began and no new themes emerged (Pope, Ziebland and Mays, 2000).

### 3.2 Qualitative methods

“...using qualitative methods helps researchers avoid imposing their values on others” (Cassidy, 1994, p.193S).

Qualitative research methods, the tools used to address the primary research objectives, attempt to describe the meanings surrounding the phenomena of lived experiences and what they mean to an individual (Draper, 2004). Qualitative methods allow for understanding complexities within human behaviour (Draper, 2004). They reach “aspects of complex behaviours, attitudes, and interactions where quantitative methods cannot”, are frequently used to “develop theory” (Mays and Pope, 1995, p.44). These methods are best learned from practical experience (Fade, 2004). The task of the qualitative researcher is to step into the participant’s world, then out again.

Either individual semi-structured interviews or small focus groups (4-8 participants) are ways to collect data from participants. Structured fictitious vignettes and open-ended, semi-structured questions, allow for probing (Flick, 2006) and more responses from the participants.

The advantages of collecting qualitative data via small focus groups are that they encourage group interactions, including jokes, anecdotes, teasing or even arguing, which subtly draw out cultural issues (Kitzinger, 1995) and quickly draw out knowledge and understandings (Kelly, 2006). Kitzinger (1995) reported other focus group benefits are:

- They do not discriminate against those who cannot read or write;
- Participation from those who are “reluctant to be interviewed on their own”;
- People contribute even when they feel they have nothing to say; and
- They are sensitive to cultural variables (Kitzinger, 1995, p.300).

Nutrition literature (Rabiee, 2004) described the benefits of using qualitative research with UK Muslim women, particularly if the women knew each other. The focus group environment allows for participants to feel more comfortable talking about personal or family issues (Rabiee, 2004) especially when family matters are considered private. The negative aspects of focus groups are that while participants may share a culture, it is an “unnatural setting for group interactions” and can yield less data than one-to-one interviews (Fallon and Brown, 2002, p.196).

Qualitative research has been criticised for introducing bias however “a possible way to reduce bias is to discuss it rather than attempt to eliminate it. Through a reflexive approach, the possibility of bias being introduced yet is taken into account during the analysis process” (Ludwig, 2003, p.39). Shedding assumptions (and knowledge) about diet and weight, is a way to begin to understand what the participant perceives. The author acknowledges that the Pakistani lifeworld is different from her own. For example, Pakistanis may have unique interpretations of UK health care. Lawton et al. (2006a, p.1006) reported that the Pakistani (and Indian) diabetic participants

may have “inhibited critical commentary” due to their feelings of indebtedness to free UK health care (versus paid care in Pakistan or India).

### **3.2.1 Quality in qualitative methods**

Qualitative collection and analysis of health research relies on rigour, imagination, transparency (Green and Thorogood, 2004, p.173), and maintaining quality at all times (Draper, 2004). Rigorous techniques in qualitative research refer to the examining of the meanings that derive from the data and as much as possible, have not been distorted by the way the researcher has interpreted them (Taylor, 2002). Incorporating quality into qualitative data collection and analysis is achieved through member-checking of the interview data and cross-checking or triangulating meanings and codings with other qualitative researchers. The researcher (and others in the triangulation process) is responsible for the interpretive process. After the interview data is transcribed, word-for-word, as accurately as possible, the transcription is returned to a participant who agrees to read through the interview, amending if necessary. Known as member-checking, this process increases validity and accuracy of the text (Fade, 2003). The translator can assist in transcribing and member-checking the transcripts.

Triangulation of qualitative data is a methodical process that requires structure and assessment by a team of researchers (Pope, Ziebland, and Mays, 2000). This process means the “outsider” and “insider” researchers discuss and reflect upon the data. Triangulation aims to eliminate or at least reduce the possibility of researcher bias and reduce subjectivity, creating a truer meaning from the data.

The qualitative principles used in this study are phenomenology, ethnography and social construction, described below. The van Manen interpretive model, used for the phenomenological analysis, is also described below.

### **3.2.2 Phenomenology**

Max van Manen wrote that “...research produces knowledge in the form of texts that not only describe and analyse phenomena of the lifeworld, but also evoke understandings that otherwise lie beyond their reach” (van Manen, 2006, p.716).

The definition of lifeworld, originated by philosophers, describes a set of experiences personal to each individual (Kelly, 2006). Phenomenological examination of data uncovers unique meanings, without explanation, opinions or judgment, of a reality that is socially constructed through lived experiences (or phenomena). Representing reality according to the participant and how they perceive it is the phenomena (Fade, 2003) yet these realities are different for every individual. Interrogating the data and asking further questions increases and deepens meanings within the data.

Phenomenology is based on a lived experience description, the moment of *now* and reflection (van Manen, 2006). “Proper understanding of phenomenology can be gained only through doing it” (Adams and van Manen, 2008, p.3). The van Manen approach and phenomenological theories require new ways of thinking, seeing and addressing meanings. There is no right or wrong way to explore or interact with the data. The researcher’s creativity of thought and sensitivity to the words of the participants bring with it new ways to understand their experiences.

There are few examples of published qualitative SA phenomenological research using the van Manen approach; however Vydelingum (2000) is one example where it was used. Vydelingum (2000, p.100) interviewed a group of ten SA patients and their carers, post-discharge from hospital. The research uncovered patients’ perceptions of the hospital as an “English place”. Though only a small group of participants in southern England, the data revealed the level of dissatisfaction with their care, particularly in unmet religious and cultural needs.

### **3.2.3 The Van Manen approach**

The van Manen approach was chosen for this study because of its conciseness, traceability and reproducibility of thought (Ludwig, Cox and Ellahi, 2010; McKenna and Ludwig, 2008; Ludwig, 2003) which are sometimes lacking in qualitative

research. From the transcribed interviews, the text is manually broken down, line by line, and entered into the van Manen matrix (see Table 3.1 below). This process involves being sensitive to the individual words, then looks at them in its entirety (in parts then again as a whole) and is a tool to interpret the data. Van Manen believes that all lived experience description can be categorised into four existential themes: Time, Space, Body and Human Relations (van Manen, 1997). His matrix allows for the flexibility of adding new themes, applicable to the research, then for further coding within each theme, as new trends emerge. The current data showed that two additional themes needed to be included in the matrix, “Health” and “Foodways” (Kassam-Khamis et al., 2000), both relevant to the project objectives.

**Table 3.1 Van Manen analysis matrix**

<b>Time</b>	<b>Space</b>	<b>Body/Health Beliefs*</b>	<b>Human Relations</b>	<b>Foodways*</b>
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\*Health Beliefs and Foodways were added to the van Manen themes of Time, Space, Body and Human Relations.

### **3.2.4 The interviews: Hermeneutic reflection**

Van Manen (van Manen Masterclass, 2008) explained that while phenomenology is a means of gathering, exploring, and describing lived experiences, an hermeneutic interview explores and attempts further interpretation of those meanings. The interview is not merely a conversation but instead a pseudo-conversation where the researcher remains objective and does not “get too emotionally involved with the respondent and his problems” (Oakley, 1981, p.34). A skilled interviewer creates the right type of atmosphere. Equally, it is important for the participant to feel comfortable to express herself without disapproval, dispute or advice (Oakley, 1981, p.37). The data must be detailed and rich, this is never a challenge with an expressive participant. However, for some Pakistanis it can be difficult to openly discuss private, domestic issues as this is difficult and is discouraged (Campbell and McLean, 2003).

### **3.3 Ethnography**

Ethnography as a social science is mainly associated with qualitative research. At the outset of the study and as a way to learn about Pakistani foods and food shopping habits, unstructured and informal observations, without stereotyping, were carried out (Taylor, 2002). This familiarisation of SA food shopping spaces starts the ethnographic process. Ethnography allows for unobtrusive cross-cultural observations and informal discussions in everyday settings as a means of interpreting social reality (Savage, 2000). Ethnography “may uncover behaviours or routines” which participants may not be aware of (Mays and Pope, 1995, p.312). Fieldnotes were reported in a journal and during the research process. This is important as the researcher is prompted to ask how and why (to enhance meanings) and to note them (Tolich and Davidson, 1999) including non-verbal communication (Fade, 2004).

### **3.4 Social construction**

Through a sociological lens, the aim was to “see” the participants differently and from a new perspective, not as individuals with different forms of dress or language but with many dimensions, mixing old and new world traits, in their natural settings (Draper, 2004). Simply put, social construction means that human beings interpret the world they live in through “everyday knowledge” which is created through “social interactions” as a way to deal with situations (Nettleton, 1995b, p.19). The “facts” that make up the lifeworlds of the participants maybe “beyond” or could be interpreted as “bizarre” by western biomedicine (Nettleton, 1995b, p.22). However to the participants, they are real and have meaning. By continuing to ask questions about the perceptions of the participants, and as the next phase, social construction of health and obesity is developed. The research sought to uncover the participant’s understanding of prevention, and health risks including motivators and barriers linked to diet. By identifying and exposing them, and if possible mapping them against existing theoretical health behaviour models.

### **3.5 Insider/outsider analysis**

The design of the research is enhanced through this type of analysis however it was argued to be a limitation as well. Bhopal (2001, p.283) wrote about sameness and differences between a non-South Asian researcher and the SA participant by expressing that barriers because of skin colour can be created and that between “black” respondents and “black” researchers: “Such situations demonstrate our position in the hierarchy of research which can affect our relationship to the researched, the interview process and ownership of data” (Bhopal, 2001, p.281). Similarities and differences create barriers between the researcher and participant. It could also be argued that the researchers’ views and experiences, as an outsider, are racialised, socially constructed, (Bhopal, 2001) and need be reported.

### **3.6 Body shapes**

Other research used the concept of collecting positive and negative opinions on body weight and shapes in BME groups (e.g. Greenhalgh et al., 1998a; Johnson, Seacole and Owen, 2000). For some women, a larger body size or concepts are not always perceived as negative. For example, Greenhalgh et al. (1998a, p.980) found in her qualitative research with British Bangladeshis that a larger body size was seen as an indicator of “more health” or perhaps “too much health”.

### **3.7 Existing health behaviour models**

By using existing theoretical behavioural health models, the research data was mapped and compared. Kelly (2006, p.1) wrote that changing and influencing behaviour is “at the heart of health promotion”. This is achieved by applying health behaviour models which ideally put change in motion. Models operate at high “levels of generality” and are not universally applicable but they work best when they relate specifically to a particular group, they work best (Kelly, 2006, p.3). Kelly (2006) explained the pros and cons of different health behaviour models, with the aim of using them as frameworks for action, with desirable outcomes (e.g. for smoking cessation, healthier eating, etc.).



Baranowski, Cullen, Nicklas, Thompson, and Baranowski (2003) described different health models which are particularly effective for designing nutrition interventions. The Social Cognitive Theory (Bandura, 1989) has been widely used for this purpose as well as the HBM (cited in Abraham and Sheeran, 2005). To summarise, the HBM states that the manner in which behaviour changes (it assumes that the process of change is triggered in a variety of ways; Beishon and Nazroo, 1997, p.4) in response to a health issue is dependent on three factors:

- The perceived threat imposed by the illness/health risk;
- The subject's belief that they can alter this risk by changing their behaviour; and
- The “cost” of the required behaviour change, e.g. physical, psychological and financial (Abraham and Sheeran, 2005).

Other models such as the Protection Motivation Theory [PMT] as discussed by Norman, Boer, and Seydel (2005) may be more appropriate as cognitive and social aspects integrated as well. Or the PAPM (Precaution, Adoption, Process model), developed by Weinstein (1988) and described by Sutton (2005) (with two earlier stages of Unaware of issue and Unengaged by issue) is a variation on the Transtheoretical Model [TTM] or Stages of Change model. The Stages of Change model describes the constructs of Precontemplation, Contemplation, Preparation, Action and Maintenance (Prochaska and Diclemente, 1984), expressed by a linear or spiral movements (Greene et al., 1999; DiabetesUK, 2004). The PAPM includes two prior stages: unaware of issues and unengaged by an issue. After these two stages, the model continues with deciding whether to act (or not act). These models acknowledge that a person might be unaware of health risks. Noar and Zimmerman (2005) discussed the proliferation of health behaviour theory models and constructs and questioned their added value to health knowledge.

Wetter et al. (2001, p.S15) wrote that “prevention of illness calls for daily attention to eating, though not necessarily in terms of the biomedical model”. Wetter et al. (2001, p.S15) stated that “it makes sense that receptivity to health promotion

intervention will depend upon the similarity between the models of health maintenance and illness causality of the target population and those of the interventionist". Some qualitative research has reported how (but not why) SA health behaviour does not apply to existing western health belief models. As an example for SA, Greenhalgh et al. (2005) found that non-English speaking Bangladeshi diabetics compared blood glucose results with each other and not with their own previous results (what the HBM predicts).

## **Chapter Four:        Methods**

### **4.1    Research design flow chart**

Figure 4.1 (below) presents the design of research from the initial ethnographic phase, to the development of the Health Action Transition (HAT) model (discussed in Chapter 6, p.121). It represents the process and final product. Simultaneous purposive recruitment of the 1G and 2G participants and then the two-stage analysis of focus group and interview data with phenomenology, sociological reflection are represented, these stages deepen meanings and continue to interrogate interview data.

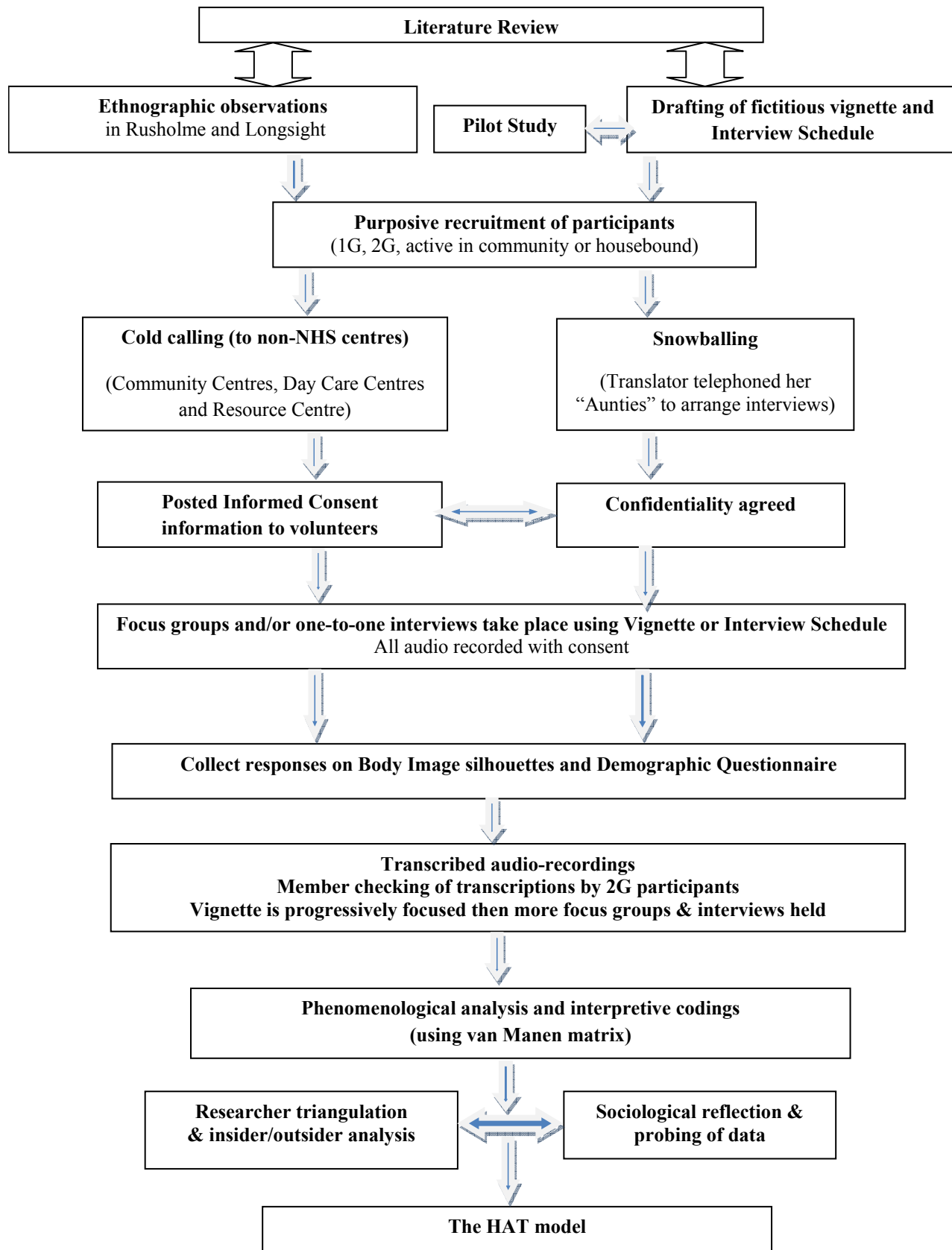


Figure 4.1 Research design flow chart

## **4.2 Study design**

### **4.2.1 Recruitment**

Five community centres which Pakistanis visited in Greater Manchester such as day care or resource centres were identified online. First generation housebound women do not typically use these centres as they cater to younger women needing child-care facilities or for those more active in the Pakistani community. Cold telephone calls were made to the managers of centres, explaining the purpose of the call then, if agreed by them, an initial visit was arranged when the research description and purpose was left (Appendix C) or posted. Concurrently, the 2G translator, fluent in English and Urdu, contacted women (her “Aunties”) to recruit housebound women. Once the volunteers agreed to participate in a focus group or interview, a date was set, and anonymity and confidentiality was guaranteed. All of the women were reassured that they did not have to answer any questions. Generally, the 2G women were happy to participate and were not sure about participating and sharing their experiences. It was intended that during the focus groups or one-to-one interviews, the participants (particularly the 1G) felt comfortable in being interviewed and that they openly expressed their opinions. Money was not allocated as a motivator for participating, but during the focus groups held in the centres, fruit was provided as a small token of appreciation.

Table 4.1 (below) shows the dates of the small focus groups (no more than eight participants) or one-to-one interviews, whether 1G or 2G and how long the sessions lasted. A one-to-one interview lasted 15 minutes when a 1G participant was not expressive and was unsure how to answer (other interviews lasted up to an hour); however a focus group with 2G participants lasted up to two hours. Ten participants were interviewed in one-to-one sessions (between 10 February 2006 and 18 May 2006) in their homes and six focus groups (between 30 November 2005 and 18 January 2007) (n=45) were held in community or resource centres.

No defined sampling framework was used in this study other than what is included in the research inclusion and exclusion criteria. The participants were either 1G

(born in Pakistan or those who identify with the Pakistani culture though they were born in India or East Africa) or 2G British Pakistani women (born in the UK of Pakistani parents). The inclusion and exclusion criteria of the participants are defined below. No other criteria for participation were defined as is the norm with qualitative recruitment.

**Inclusion criteria:** Women over 18 years born in Pakistan (1G) or in the UK( 2G), living in NW England, working women, housewives, English speaking and non-English speaking Pakistanis.

**Exclusion criteria:** Men, girls and boys under 18, other ethnic groups, research conducted in Pakistan.

**Table 4.1 Dates of focus groups and one-to-one interviews**

<p><b>Focus Group Sessions</b> (lasting 1-2 hours) (n=45)</p> <p><b>Dates held</b></p>	<p><b>One-to-one Interviews</b> (lasting 15 minutes to one hour) (n=10)</p> <p><b>Dates held</b></p>
<p>30 November 2005<b>a</b>*</p> <p>30 November 2005<b>b</b></p> <p>20 January 2006</p> <p>7 April 2006</p> <p>15 June 2006</p> <p>18 January 2007</p>	<p>10 February 2006<b>a</b>*</p> <p>10 February 2006<b>b</b></p> <p>27 March 2006<b>a</b></p> <p>27 March 2006<b>b</b></p> <p>3 May 2006<b>a</b></p> <p>3 May 2006<b>b</b></p> <p>5 May 2006</p> <p>17 May 2006</p> <p>18 May 2006<b>a</b></p> <p>18 May 2006<b>b</b></p>

\*=**a** and **b** denote two interviews held on the same day.

#### **4.2.2 Research Translator**

A research translator, required for translating and snowballing (accessing the housebound participants), was, a 2G female professional translator who lived and worked in Manchester, who spoke English, Urdu and Punjabi. She was trained by the researcher (about reading the vignette and maintaining open-ended questions so as to not bias the answers) and familiarised with the purpose of the research. The training of the translator helped to ensure quality while data was translated and gathered. She was shown how to read the vignette and questions without prompting answers, essential in not biasing the responses. The translator aided in translating the recorded interviews, capturing any nuances from Urdu or Punjabi and in translating the demographic questionnaire. She helped also in helping the participants feel at ease, knowing she could translate, if necessary.

#### **4.2.3 Pilot Study**

In order to practice focus group methodology and using a fictitious vignette, ensuring quality, a pilot study focus group was conducted with seven Muslim Bangladeshi women at a Bangladeshi Community Centre in London. The women each verbally consented to participate and were guaranteed of confidentiality (no written information was provided). A 2G Bengali woman acted as translator during the focus group (Appendix F for the pilot vignette used).

#### **4.2.4 Informed Consent**

At the beginning of each of the focus groups or one-to-one interviews, the Participant Information and Informed Consent (Appendix C) was read to the participants. This information was initially sent to the managers ahead of the scheduled focus groups or interviews. For the housebound participants, the translator discussed the research and its purpose prior to the one-to-one interviews. The participants were thanked at the beginning and end of the sessions and confidentiality was confirmed.

### **4.3 Tools for collecting data**

#### **4.3.1 Vignette**

As a means of collecting perceptions from the 1G participants, it was decided that a third-person fictitious vignette or story about a character named “Farah” was appropriate (Appendix D) rather than exclusively asking open-ended questions. All the participants confirmed that they agreed to have the discussions audio taped. The purpose of the vignette was to instigate and stimulate dialogue particularly as the 1G participants were less expressive and sometimes shy. The vignette was read by the researcher or by the translator and was used in both the focus groups and one-to-one interviews. The Farah vignette was intended to resonate with the lives of the 1G women, by being culturally and gender-sensitive, and focusing on a familiar character, a 38-year old born in Pakistan, obese mother of four. Farah’s story was said to be “*typical*” by a 50-year old 1G participant. The vignette drew out the perceptions on how the participants perceived Farah’s health, the food she chose and prepared and what her family ate. The participants were asked to explain, if possible, about Farah’s weight and health. In the vignette, Farah was described as being tired and thirsty (signs of T2D). To start and maintain dialogue, open-ended questions were interspersed throughout the vignette.

#### **4.3.2 Progressively focused vignettes**

After using Version 1 of the vignette three times, it was necessary to draw out different data and meanings for the remaining focus groups and interviews, by adapting (or progressively focusing) the vignette. According to the method of progressive focusing where new and emerging issues (or gradual modification of the vignette with each successive focus group or individual interview) are explored, the need for different data became apparent (e.g. moving the focus away from Farah or exploring motivators and barriers in her lifeworld). Version 2 (Appendix I) started the same as Version 1 and remained focused on Farah and her health. Version 1, considered a pilot version, and Version 2 both read that Farah watched Asian television but left her feeling confused as to what to do about her health. Often 1G Pakistanis repeated the same types of comments about Farah’s experiences. Starting with Version 3 explored the participants’ motivations and barriers to changing their eating or cooking habits for Farah’s family. Thus the aim shifted



from Farah, the wife, to Farah, the mother, then to her family members again focusing on health understandings. “Parveen”, her sister, described as having headaches, high cholesterol levels and was recommended to see a dietitian (Version 3); then back to Farah, this time she is described as having a “*big stomach*” (Version 4 included the use of picture prompts as visual aids; as used in Hawthorne, 2001) then to her obese teenage son or to her unwell and overweight husband, “Thahir” (Version 5). Each version of the Vignette was used a minimum of two times. Versions 2 to 5 are found in Appendix I.

For the 2G women, the Interview Schedule (see Appendix E), used in either focus groups or one-to-ones, had 12 open-ended semi-structured questions designed to instigate and maintain dialogue about the same research topics. It was not necessary to adapt the Interview Schedule.

#### **4.3.3 Interview Schedule**

The younger 2G participants who spoke English fluently were asked a series of open, semi-structured questions from the Interview Schedule about their meals and health understandings (Appendix E). The data collection methods for the 1G and 2G women were different (the Farah story versus the Interview Schedule) because the 2G women were not expected to be personally familiar with Farah’s life story (e.g. growing up in Pakistan). They discussed what their mothers and elders taught them, family meals and how they were feeding their children while maintaining traditions for their husbands, if they had one (n=6 were married).

The interview settings, for all the participants, whether in public or in their homes, were relaxed and congenial, allowing for openness, yet were structured. Probably for most of the participants, the interview situation was unfamiliar, so earning their trust was important.

#### **4.3.4 Demographic questionnaire**

Each woman verbally agreed to answer a written demographic questionnaire (Appendix G), and was again assured of data confidentiality. The women were told

they did not have to answer any of the questions. This data was used to contextualise and compare the two groups of women. They answered the questions themselves (if they spoke and wrote English) otherwise were helped by the translator. Included in this questionnaire were questions about years of education they had in Pakistan or in the UK (Table 4.3) or what types of meals they ate weekly (Figure 5.2, p.112).

#### 4.3.5 Demographics of the participants

The demographic data collected at the end of the focus groups and interview sessions are shown below (Tables 4.2 and 4.3).

**Table 4.2 Characteristics of the participants**

<b>The Women (n=55) Overall age range: 23-80 years</b>	<b>Marital status</b>	<b>Average number of children</b>	<b>A selection of birthplaces in Pakistan (urban or rural)</b>
<b>1G women (n=44)* Median age=45</b>	n=41 Married n=3 Widowed	3.4 SD=1.84	<b>Pakistan:</b> Lahore (urban), Gujranwala (urban), Abbottabad (urban) Quetta (urban), Islamabad (urban), Mirpur (rural), Azad Kashmir (urban), Karachi (urban), Rawalpindi (urban), Jhelum (urban)
<b>2G women (n=11) Median age=32</b>	n=6 Married n=5 Not married n=0 Widowed	1.9 SD=1.64	<b>England:</b> Manchester, London, Leeds, Doncaster

\*One woman was not sure of her age.

Table 4.2 presents the self-reported data collected. Participants described themselves as either Pakistani or British Pakistani, came from either urban or rural locations in

Pakistan and were active outside their homes or were housebound (n=5). The information contextualises the two groups.

**Table 4.3 Self-reported mean number of years of education**

<b>First Generation (n=44) Mean number years of education*</b>	<b>Second generation (n=11) Mean number years of education</b>
<b>9.1 years (SD=6.7)</b>	<b>20.3 years (SD=5.1)</b>

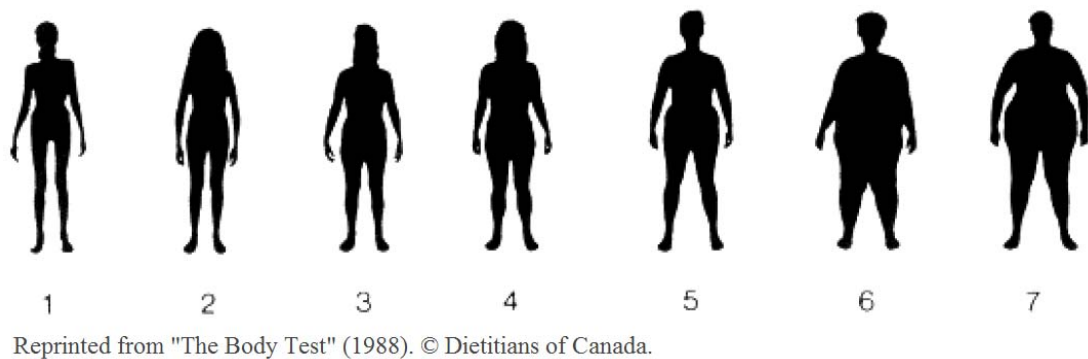
\*Eight women reported not having any education.

Table 4.3 describes educational levels, again representing the differences between 1G and 2G participants. This contextual data represents that 83% (n=37) of the participants had some education, ranging from no education (all 1G) to two participants at post-graduate level (2G).

After the focus groups or one-to-one interviews were conducted the participants were shown female body silhouettes and were asked what shape they believed Farah was. This was designed for them to think about body shapes, focusing on Farah (or themselves) being overweight (and potentially unhealthy). The participants were asked to indicate what a healthy weight and an overweight/obese body would look like.

#### **4.3.6 Body images**

As a way to continue to focus on weight and health perceptions (drawing out new beliefs), the participants were shown seven female silhouettes (Figure 4.2 below). The images did not have their corresponding Body Mass Indices, ranging from 17 kg/m<sup>2</sup> (image 1) to 35 kg/m<sup>2</sup> (image 7). The purpose was to capture their perceptions of underweight, healthy or overweight sizes, as applied to Farah or themselves. Again, by using the silhouettes, the participants did not need to discuss their weight but instead the weight of a hypothetical woman.



**Figure 4.2 Seven female silhouettes**

#### **4.4 Focus groups and interviews**

Immediately after the focus groups and one-to-one interviews were conducted, the first stage analysis was completed. It is important to transcribe and complete the van Manen analysis soon after the focus group or interview in order to capture any nuances. During this hermeneutic phenomenological method of analysis, the process involves interpreting meanings, and being as true as possible to intonation and feelings. Certainly several interpretations cannot exhaust the absolute or obvious meaning of the text and might vary upon each reading. Hermeneutic understanding implies that there is not a single or absolute meaning. Multiple interpreters also help to minimise bias, which can be introduced by a single analysis. The process of researcher triangulation, sharing interpretations, with other qualitative researchers enables further understanding of the data and reduces researcher bias. This was achieved by sharing the van Manen matrix with other qualitative researchers and comparing understandings.

#### **4.5 Van Manen analysis**

Once the focus group and interview data were transcribed, verbatim, from the audio recordings, the process of phenomenological (or lived experience description) analysis began. The purpose is to describe the large volume of data as close as possible to its intended meaning. This manual analysis technique (compared to qualitative software) involves reducing the data, line by line, and placing the sentence into the a single table for each participant using the van Manen existential

lifeworld themes of time, space, body, human relations (including Health Beliefs and foodways) (Table 3.1 above). As an interpretive process and as a way to sort the data, it captures the spirit and essence of the words expressed and adds new dimensions. By analysing the significance, without judging, allows for contemplation and deeper understanding of what had been expressed. Once the focus group and interview data is reduced within a matrix, it is then further interpreted with codings (example of van Manen analysis of a focus group is found in Appendix J).

#### **4.6 Insider/Outsider Analysis**

As part of the triangulation process and to further appreciate insider meanings, the interviews were discussed with the “insider” advisor. This stage allowed for outsider interpretations which perhaps not be considered during the phenomenological analysis.

#### **4.7 Sociological reflection**

Beyond describing experiences in the first stage, this second stage served to continue to reflect upon and ask probing questions about meanings from the data especially when compared to how health is perceived in a western society (Table 5.2).

Comparisons were drawn with the UK government recommendations, the health professional viewpoint and the way the participants manage their own health especially in relation to choices and choosing health. Ethnicity dimensions were deconstructed. Socio-cultural structures, meaningful within the Pakistani community, limit choice and are more relevant to managing obesity and health than governmental recommendations. This stage explored the participants beyond their dietary intake and food habits by taking into account the socio-cultural identities and influences of the participant.

#### **4.8 Health, safety and ethical considerations**

Ethical approval was received by Panel for Ethical Consideration by the Department of Biological Sciences, University of Chester, on 28 July 2005 (Appendix A).

For researcher safety, scheduled visits to the homes of participants were never made alone, always with the translator. The principal advisor at the University of Chester was notified when the interviews (and focus groups) were held.

For the participant, if required, the researcher would end the interviewing should the participant become uncomfortable and wish the interview to end.

#### **4.9 Study limitations**

The period of time to recruit then conduct the data collection phase took longer than anticipated as focus groups and individual interviews were held on particular days of the week and at specific times of the year. The time of day and day of the week for the interviews and focus groups were important for participation. Meeting participants on a weekday during school hours was more convenient for 2G participants. Evenings were not convenient as this is considered family time. No interviews were held on Fridays, prayer day, or during Ramadan when the women were fasting (when it was deemed inappropriate to discuss food). Interviewing was suspended during the summer and Christmas holidays.

Early on in the recruitment phase, the author knew recruitment challenges were possible as she was told: *“you won’t get the women to talk to you!”* Some prospective 1G participants were concerned about giving “right answers” or were sometimes unsure how to respond. One potential 1G participant cancelled her one-to-one interview at the last minute as she told the translator she was fearful of discussing her health. A few women queried what they would receive in return for their time and were unsure of the personal benefit of being interviewed. Another prospective participant agreed to be interviewed then changed her mind and other possible participants explaining that they did not want to think about their health. Some did not want to be interviewed because they were *‘too busy’* or were afraid (*‘panicky’*) to discuss their weight and health beliefs.

## **Chapter Five: Findings**

This chapter presents a snapshot of the participants and describes the findings from the two-stage analysis. During both stages the data was triangulated. The first stage is the overall thematic (phenomenological or lived experience) analysis and the second stage is a more in-depth sociological reflection of identities and influences. Initial field research of ethnographic observations is noted in a journal (an extract is found in Appendix B).

### **5.1 The participants**

The purposive recruitment techniques resulted in 55 participants. The demographics (Table 4.2 above) for the participants showed the women were either 1G (n=44), were older (median age=45 years; one participant was not sure of her age), were mostly married (93%), had more children (average number was 3.4), originated from both urban and rural areas and were less educated; or 2G participants (n=11) who were younger (median age = 32 years), were either married (n=6) or not married (n=5), had less children (average number was 1.9) and were more educated (Table 4.3). Both groups were either active in their local community or were house-bound, representing Pakistani women in Manchester.

### **5.2 Stage 1: Phenomenological analysis**

#### **5.2.1 Data transcription and first stage analysis**

At the conclusion of each focus groups or interview session, the van Manen analysis and interpretive codings (in red) were done immediately (example is found in Appendix J). This section highlights examples of some of the responses expressed by the participants, including two early research conceptual food maps (Appendix K and Figure 5.1) which are linked to government recommendations (e.g. patient-centred care, etc.). The analysis, at this stage, relating mostly to Farah, included transcribing the recordings and coding the data. Some participants focused on Farah and others spoke about themselves and their families (which was intended outcome of the focus groups and interviews). The themes which emerged from this stage are

separated into four categories: Health, Weight, Diet, Motivators and Barriers to change (highlighted in bold below).

### **5.2.2 Farah's health**

The participants believed Farah was not well but were not sure what she should do or whom she should consult. Overall they did not express a preference for a source of sound health advice. Some of the 1G responses were:

*"...basically she should go and speak to the doctor. I think this is the first thing is go and speak to the doctor. Like you're safe to say anything over there..." ; 'Somehow, somebody don't let you to go out then this is the way you can give your message to the health visitor'; So the thing is, I think so, we have to change our society that's all!"* (50-year old 1G widow)

Farah should see *"A social worker."* (50-year old mother from Islamabad)

*"She could ask someone."* (33-year old mother-of-two from Karachi)

*"Did she not look after herself? She is weak, not well. What is wrong with her? Why is she not feeling well?"* (33-year-old mother-of-two from Karachi)

*"She should diet, don't eat junk food, don't sit and watch TV too much, go gym, walk." 'I ask elders [for advice]. 'When I have pain they tell me home remedies as they have a lot of experience.'"* (46-year old mother-of-three from Rawalpindi).

### **5.2.3 Farah's weight**

The participant's reported that Farah experienced weight gain for many (and inevitable) reasons. The 1G women were certain that Farah gained weight because of childbirth, laziness, age or language differences. Some 2G responses related to Farah changing her habits and the influence of Islam on her diet.



*“When you are young you can eat everything, you can eat what you want but day-by-day you can’t eat much. About your body you have children...”*

*“She’s not working, job-wise, she’s sitting around”*

*“She can’t work in the house anymore.”*

*“She has no willpower...she have a language problem.”*

*“Laziness prevents her from doing something about her weight or perhaps lack of time” (58-year old mother-of-eight from Azad Kashmir);*

*“She has children. She’s here and she eating, she might be sitting, not working” (60-year old mother-of-three from Mirpur);*

*“...They are conscious of health but we do obviously give in to temptation. I don’t think they are really bothered because I think at that age you don’t really kind of care. You just want to live life as you’re used to your lifestyle and you don’t like anyone telling you what to do. You know, it’s just changing your ways of cooking, it’s just all together changing your habits, changing what you like, what you’ve been used to. It’s just to do with that age. ...If they were educated then I think that would have been the best time.”*  
(2G British Pakistani)

*“...Faith also tells you to eat a balanced diet, which I’ve just realised now that faith can have an influence on your thinking about what you eat but like I’ve said people don’t really, you know, but I don’t think all Muslims are very well informed about what’s Islamic about eating.”*

*“...I don’t like things with additives in it or colourings in it but I try to have a healthy diet everyday...I’ll have lentils...children are also encouraged to have a glass of milk if they want to .....”* (2G British Pakistani mother-of-one).

#### **5.2.4 Farah’s diet (including motivators and barriers)**

The perceptions about Farah’s weight and health problems were varied and unclear. The participants did not appear to associate being overweight with T2D.

#### **1G women:**

*“So my children.... they told me go and lose some weight but motivation is really....I can’t find things because it is myself. I have to lose weight” and “...basically she [Farah] should go and speak to the doctor. I think this is the first thing is go and speak to the doctor. Like you’re safe to say anything over there ...”* (50-year old 1G widow)

*“Farah has health problems maybe TB or cancer’ and ‘Farah should walk and she should go to elders for advice”* (46-year old mother from Rawalpindi)

*“...[translation] she says she knows and she says she wants to actually wants to lose weight, that motivation, she hasn’t got that motivation”* (60-year old mother-of-four from Mirpur)

*“She should improve her diet because of the children because if she becomes ill, who’s going to look after the children”; Farah should “cut out fats and stop binging; picking and binging from the children, scraps, kids leave bits.”* (50-year old mother-of-four from Islamabad)

*“She’s not eating properly so her health is suffering. She probably can’t work in the house any more. She could have some illness.’ ‘She feels thirsty and hungry and she is too fat.”* (50-year old mother of four from Islamabad)

Farah *“should be concerned about her weight, should get out and about more, learn English.”*

Farah’s sister, Parveen, should *“stop the ghee and use olive oil.”*

#### **2G woman:**

*“...My parents started taking note. My dad had a heart attack due to high cholesterol, that’s when he started cutting down on fats, I think, and started eating olive oil as opposed to ghee.....He’s cut down on sweets. You know the Asian sweets have a lot of sugar in them so he’s cut down on that. I think it is only when the family is hit with someone with a health problem but then still they obviously give in to desires and under culture of the cooking”* (26-year old, British Pakistani Muslim woman)

*“There is always choice...meat or chicken.”*

#### **5.2.5 Barriers**

##### **1G woman:**

*“...They have to cook, they have to clean, they have to feed the children, they have to look after the husband..’ ; ‘... my daughter she used to cook a very small amount of oil but when she married she has to cook their way ’*

and ‘..Asian people, most of them they don’t have the family support...’ (50-year old widow).

“At 38 years old she [Farah] is not a young woman” (60-year old mother-of-four from Mirpur).

## **2G women:**

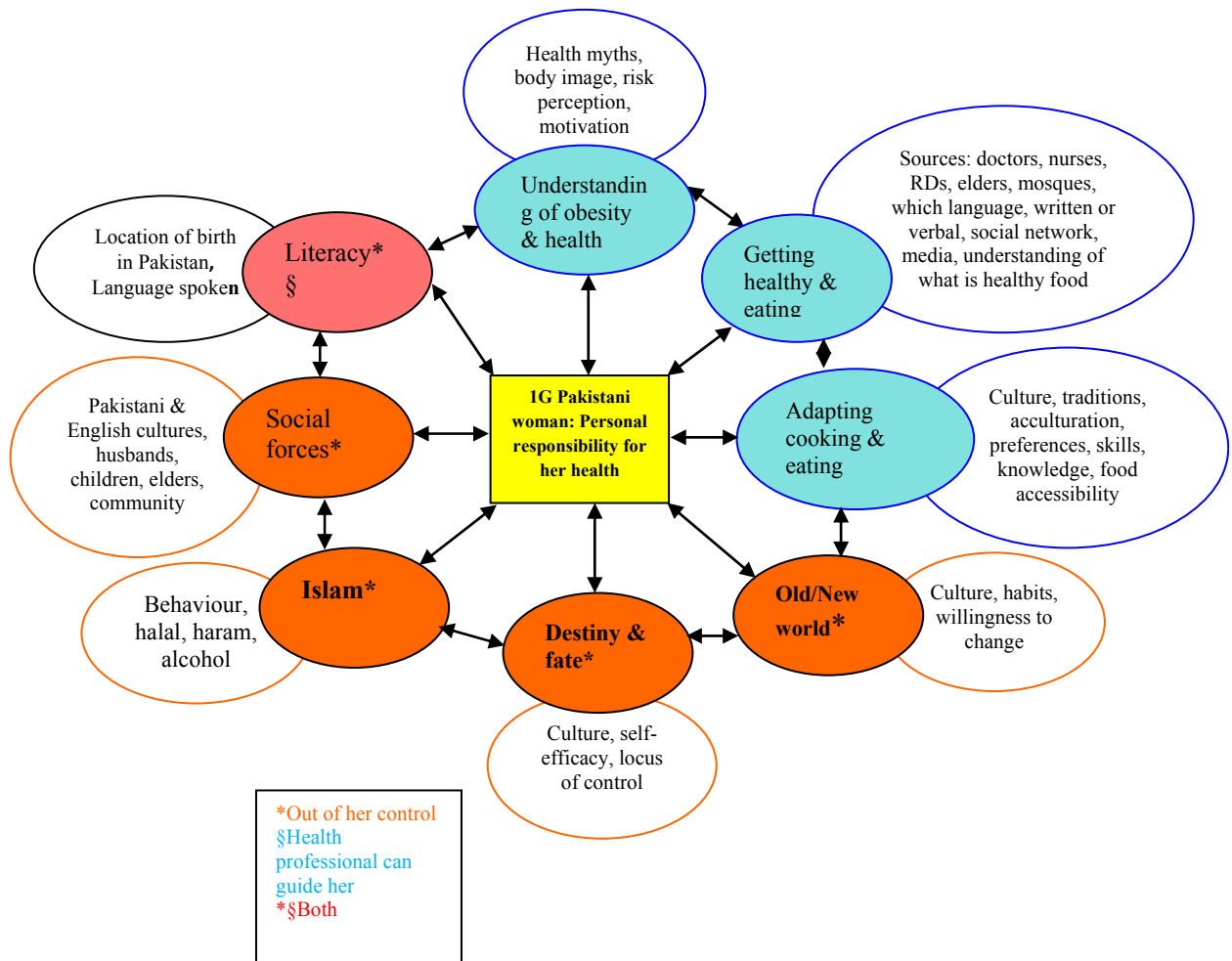
*“...Asian community they’ve obviously got curries and it is in their culture so fat and salt because we are so in the habit of making it, we don’t really measure, you know, when we add the ingredients. We just put it in as we please... my parents having lots of responsibilities and so engrossed in their lives, that they don’t have time to worry about their health.”;*

*“I think professional doctors and like nurses, we can find out from them ...but mostly... we follow the tradition we learn from our parents”*

*“...I personally think there’s not information with regard to healthy or unhealthy foods out there...”*

*“...they’ve carried on through from their mums and grandmothers that I don’t think that people will be ready to change...”*

*“...Food has nothing to do with it, when you’re time’s up, you’re time’s up, it doesn’t matter’ and I think that is my kind of attitude as well.”*



**Figure 5.1 Health responsibilities for the Pakistani participant in NW England**

Figure 5.1 presents a schematic view of the research analysis at the end of this stage. It is one-dimensional and focuses on the participant. It describes the controllable factors (blue bubbles including Literacy), uncontrollable factors (orange bubbles including Literacy) or both in her lifeworld and the interactions between each.

### 5.3 Stage 2: Sociological Analysis

This stage was a further interpretation of the data undertaken based on a combination of historical, structural, cultural forces influencing the process and interrogating the power relationships within these. The participants described their British/Pakistani/Muslim identities as a “*double culture*” and as “*100% complex*”.

## 5.4 Emerging themes

Table 5.1 (below) reports the emerging themes and perceptions (in bold) from the 1G and 2G participants. They uncover further meanings compared to the phenomenological analysis of Farah in the first stage van Manen analysis. Further questions were asked and reflected upon. The second stage analysis was designed to deconstruct the identities and environment of the participants through explanations of their families, health, body, food, meals and faith. Their lifeworlds are explained in terms of being Pakistani Muslims living in Manchester.

**Table 5.1 Perceptions and perceived themes arising from the sociological reflection**

<b>Emerging themes from second-stage analysis</b>	<b>1G and 2G participants' perceptions (in italics)</b>	<b>Translator interpretation</b>
<b>Urban versus rural practices</b>	<p><i>"Some ladies came from the city, they can say it but from the background, village background in some cities where you brought up, you can't say 'oh sorry I can't do it now'."</i></p> <p>(1G)</p>	<p>"Women from the cities in Pakistan were more confident and can say no to their husbands. Women from villages do not feel empowered to speak up to their husband".</p>
	<p><i>"...Different climate, fresh air and mountains with a lot of walking and more active lifestyle...including for women".</i></p> <p>(1G)</p>	
	<p><i>"I ate everything out there including butter, ghee...a lot of the foods made fresh have grown on my own land".</i></p> <p>(1G)</p>	
	<p><i>"My nieces and nephews lived in an urban area of Pakistan and spoke English at home, not Urdu".</i></p> <p>(1G)</p>	
<b>Climatic effects on health, activity and eating</b>	<p><i>"...Because it is cold, she [Farah] eat, maybe she not doing work, her body going to change."</i></p>	

Emerging themes from second-stage analysis	1G and 2G participants' perceptions (in italics)	Translator interpretation
	(1G)	
	<i>"It was hot there....they sweat and digest food differently".</i> (1G)	
	<i>"It is not the way she eat in Pakistan, it is the hot weather over there and we work and we walk and so many things."</i> (1G)	She was more active in Pakistan.
	<i>"They are not overweight because I think that's partly the climate because it's quite hot there]. They just lose the fat from sweating, you know, plus because of the weather the people get out and about more so they get more exercise and they walk a lot and that's why you tend to have less health problems there..."</i> (2G)	
	<i>"...because it is a very cold country and it's not good for health like in Pakistan we have more activities where we run and we have got jobs ...we run around ...then it's OK to eat ghee but not in this country."</i> (1G)	
Cultural roles and family	<i>"Like it's somehow in our culture...She can't stop to cook the ghee...it is</i>	



Emerging themes from second-stage analysis	1G and 2G participants' perceptions (in italics)	Translator interpretation
dynamics	<i>very hard to convince the family".</i> (1G)	
	<i>"One woman against her family. She has to cater to her husband and children".</i> (1G)	
	<i>"...you know what, me mum was right...our mums and grandmas were right because they always made you have nuts and my mum always said to me, 'Make sure you have before you go to sleep you have a couple of nuts'...all right, Mum".</i> (2G)	
	<i>"...Plus there's more of a culture that overrides the religion, the Pakistani culture overrides the religion".</i> (2G)	
Halal and haram	<i>"We only eat what our religion tells us to eat".</i> (1G)	
	<i>"...Faith also tells you to eat a balanced diet, which I've just realised now</i>	

Emerging themes from second-stage analysis	1G and 2G participants' perceptions (in italics)	Translator interpretation
	<i>that faith can have an influence on your thinking about what you eat but like I've said ....I don't think all Muslims are very well informed about what's Islamic about eating...Islam actually covers a lot of topics... the focus is more on praying and general social issues than health."</i> (2G)	
	<i>"I will just glance at the ingredients, I mean I always check the ingredients of food that I'm not familiar with just to make sure it's suitable for vegetarian or it's halal but in terms of calories and things I will just glance but I don't really pay much attention because I believe my diet overall is quite healthy."</i> (2G)	Shopping in a non-Asian food shop.
<b>Food, meals, significance and social expectations</b>	<i>"People say 'eat, eat'. I don't like it."</i> (1G)	
	<i>"I live with such a big extended family and our house has an open door policy. People are always in and out, always have something made, rich heavy food because if someone came to your house it is considered offensive to have not made anything for them to have so our house is always full of rich food and sweets and desserts..."</i> (2G)	

Emerging themes from second-stage analysis	1G and 2G participants' perceptions (in italics)	Translator interpretation
	SA food: "... <i>fatty and not so good for health</i> ". (2G)	
	Takeaway food: "... <i>isn't always healthy...I prefer home cooked food</i> ". (2G)	
	<p><i>"English food is full of preservatives and processed"</i>. ** (2G)</p> <p>**Examples "<i>English food</i>": as chips, beans, bread, eggs, breakfast and food from restaurants such as McDonalds or Pizza Hut</p>	
	<i>"Try to put more vegetable in your meal and once in a daily meal in afternoon or like evening meal so we try to keep meat and vegetable together."</i>	
	<i>"I can't remember the last time I ever had anything like a paratha or anything like that for breakfast. I mean it must have been at least 10 years ago..."</i>	A paratha is a chapati

Emerging themes from second-stage analysis	1G and 2G participants' perceptions (in italics)	Translator interpretation
	(2G)	covered in butter.
	<p><i>"Ginger and garlic is so good for health and all the spices...so our food does have good things in it...we've got all the bad stuff...fried samosas, fried kebabs, sweets, hova, chapattis fried in oil".</i></p> <p>(2G)</p>	
<b>Outside versus inside influences</b>	<p><i>"I think professional doctors and like nurses, we can find out from them but mostly we Asian people we follow the like tradition we learn from our parents."</i></p> <p>(1G)</p>	
	<p><i>"Like our family, our peers, like they give us healthy food and we try to like follow them ..."</i></p> <p>(1G)</p>	
	<p><i>"They told us to drink more milk and eat more vegetables."</i></p> <p>(2G)</p>	Advice from elders.
<b>Changing versus</b>	<p><i>"Our ancestors ate like this and they were all right' so why shouldn't we</i></p>	

Emerging themes from second-stage analysis	1G and 2G participants' perceptions (in italics)	Translator interpretation
respecting traditions	<i>be?"</i> (2G)	
	<i>"We tend to focus on meat whether it's lamb or chicken and we eat a lot of meat'. 'I don't think that people will be ready to change....I think it's really difficult because you try to change the norm that they are used to for years and years...they've carried on through from their mums and grandmothers."</i> (2G)	
	<i>"If you're used to eating the same food using the same ingredients, it is a very, very hard thing like changing to oil".</i> (2G)	
	<i>"I like my curry, we all like our curries and we can't change them'...I've never counted my calories when I'm eating my curries and my chapatis. [In Pakistan] ...you're eating small amounts; you're eating quality food, good quality food whereas here it is processed".</i> (2G)	
Food beliefs	<i>"I remember when we were small we were told that we shouldn't be eating fish and milk together; you're not supposed to eat, drink milk for a skin</i>	

Emerging themes from second-stage analysis	1G and 2G participants' perceptions (in italics)	Translator interpretation
	<i>condition."</i> (2G)	
	<i>"They think that would reduce the diabetes by the kind of thing they eat but they forget that they fry the karela."</i> (1G)	
	<ul style="list-style-type: none"> <li>• White speckled skin or any skin condition comes from eating milk and fish at the same time;</li> <li>• Ghee should only be eaten in hot climates;</li> <li>• Black onion seeds (gavindi) have healing properties; and</li> <li>• Honey has healing powers</li> </ul> (1G and 2G)	
<b>Perceptions of health risk awareness</b>	<i>"People say to me food has nothing to do with it, when your time's up, you're time's up, it doesn't matter' and I think that is my kind of attitude as well."</i> (1G)	
	<i>"Why make a fuss... that day is already written."</i> (2G)	
<b>Being overweight</b>	<i>"We have to look after our children, have to like clean our house and if we get more weight we can't like get up from the chair".</i> (1G)	

Emerging themes from second-stage analysis	1G and 2G participants' perceptions (in italics)	Translator interpretation
	<i>"Pain in my body"</i> (1G)	
	<i>"Pakistani women tend to not think about themselves and don't like seeing their bodies."</i> (2G)	

Table 5.1 presents the second stage analysis as the sociological reflection of the data. It demonstrates the strong cultural and structural influence for both groups of participants and it shows how food and health awareness are vary.

## 5.5 Body size perceptions

After the participants completed the demographic questionnaire (Appendix G), they were shown seven images of female silhouettes (without the respective BMIs), which started with an underweight figure then gradually grew larger (from BMI 17 kg/m<sup>2</sup> up to obese 35 kg/m<sup>2</sup>) (Figure 4.1). The participants' perceptions of an overweight women's body size ranged from silhouettes 4 to 7. When asked what Farah looked like as she was considered overweight, the participant's responses ranged from silhouette 4 (BMI 22.5 kg/m<sup>2</sup>) up to 7 (BMI 35 kg/m<sup>2</sup>); silhouette 3 (BMI 20 kg/m<sup>2</sup>) was reported to be the healthiest and silhouette 1 (BMI 17 kg/m<sup>2</sup>), the skinniest.

Distinct differences were noted between a mother and daughter, both born in Islamabad, who were interviewed separately. The daughter noted that that silhouettes 5 or 6 were overweight unlike the mother who believed that silhouette 7 was overweight (not obese). Silhouette 2 was believed to be a healthy weight by both mother and daughter. Another 1G mother stated, *"We were once like this (pointing to 1) and now we have children we are like this (pointing to silhouettes 5, 6 and 7). She [Farah] must worry about herself."* Another 1G woman remarked, *"Her husband may like her like this..."*

A younger woman was perceived to have healthier (lower) weight especially before childbirth. The participants expressed that the Pakistani woman, dressed in traditional clothing, is fully covered and is not always aware of her body shape (e.g. some Pakistani Muslim homes do not have full length mirrors because of modesty laws). Muslim women keep themselves covered and do not show their bodies because of the importance of modesty ("yaha").

## 5.6 Reported meals

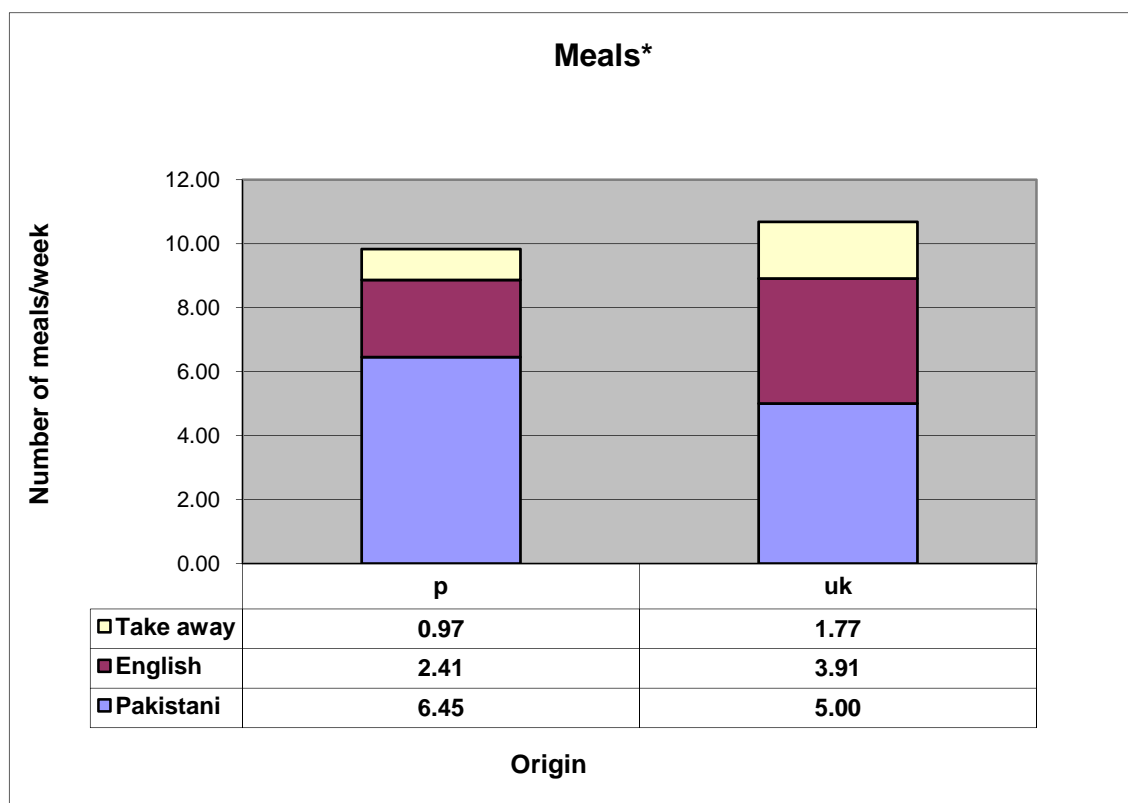


For further comparison, estimated meal data were collected in order to observe differences, if any, within and between the two groups of women. Each participant answered questions about the number of times per week they prepared and ate traditional Pakistani meals, English meals and how often they ate away from home. The participants were not asked to explain in detail if takeaway food was English or SA food. No consistent picture was formed except that every woman ate at least one Pakistani meal per week while others, usually the 1G, reported that they did not typically eat “*English food*”. This showed the diversity between families yet the similarity in frequency of Pakistani meals consumed by both groups of women. Commonly, they reported the evening meal as the meal when they had their traditional meat curry with a chapati; however one younger British Pakistani reported she only ate “*English*” food (this may have been because she did not live with her family). The 2G women reported that they ate away from home (takeaway food) regularly even if it was only once every two weeks or once a month. There appeared to be some perceptions that eating takeaway meals was possibly an unhealthy option. Chips and beans seemed to be a favourite choice as the women were restricted by halal or haram foods. One young mother aged 27, from Islamabad, expressed a preference for eating at home:

*“People eat more like chips and beans and takeaways and it makes people more fat than their normal if they cook something at home then we can control our diet and our body. We try to eat at home more than eating out.”*

Figure 5.2 (below) shows the frequency of types of weekly meals consumed by the participants (meals were Pakistani, English or takeaways). The women did not give information about each meal consumed either thinking of it in terms of being Pakistani or English and were not asked to define what type of food was in a takeaway meal. The responses show that the 1G women consume more traditional meals (6.45 meals/week) as compared to English food (2.41 meals/week). However, the 2G women ate only a few less traditional meals at 5.00 meals/week, still showing a strong link with traditions, and English food at 3.91 meals/week. The 2G women

ate more takeaway meals per week than the 1G women (1.77 meals versus 0.97 meals/week).



**Figure 5.2 Number of specific meals eaten by the participants (P or UK) per week**

**Note:** The 2G women were born in the UK (group UK) and the 1G were considered to be from Pakistan (group P). Three of the 1G women were born in India and one in East Africa otherwise the women were born in Pakistan. The data shows that while 2G ate more takeaway meals per week, having traditional meals were consumed regularly.

\*Meals were not always eaten at table. Some women described eating their family meals while sitting on the floor which was reported to be important in two ways by a 38-year old 2G. She defined this as a traditional way to eat as well as a way to control the amount eaten. Sitting on the floor meant that their legs were closer to their stomachs therefore they ate less.

## 5.7 British Pakistani women and the health professional viewpoints

At this stage, it emerged that health professionals and the participants perceive health from different viewpoints (examples found in Table 5.2 below). The perceptions act

as barriers but provide opportunities for the health professional. The viewpoints incorporate the Pakistanis viewpoints, her traditional values while the Health Professional incorporates the western biomedical model of risk, health and obesity. However, in one area they concur: more physical activity (exercise) is needed. Table 5.2 is linked to Table 4.1, top down policies versus bottom up examples of understandings.

**Table 5.2 Viewpoints of British Pakistani women & UK health professionals**

<b>British Pakistani Woman's Viewpoint</b>	<b>Health Professional's Viewpoint</b>
Diabetes probably caused by stress or migration	Obesity contributes to T2D
Food and diet is healthy	Diet is not healthy (i.e. too fatty)
Need more exercise (not just housework)	Need more physical activity
Traditional Pakistani/cultural views of health (e.g. sweating in hot climate is better for digestion and weight loss, etc.)	Westernized view of health (e.g. quality of food, portion control and physical activity can improve health, etc.)
Women want to please husbands and children with preferred food and preparation	Women desire and have the willpower to change cooking and eating habits for themselves and their family
Obesity could be healthy; not a problem	Obesity is a problem; based on WHR, BMI, waist circumference, and other biomedical markers
Obesity is inevitable (e.g. post-childbirth and age)	Obesity is preventable and is not inevitable
Fate and destiny	Prevention and risk assessment
May not be aware of some healthy eating messages (e.g. five portions of fruit and vegetable/day)	Assumes she is aware of healthy eating messages
Health not always a priority; looking for a 'quick fix'	Health is a priority; looking after health is ongoing

Table 5.2 represents the different perspectives between traditional Pakistani viewpoints about weight and health that lack understanding about health risks and may not place great importance on taking control of their health. Whereas the western health professional believes in taking preventative measures and understands the risks involved of not taking control of one's health.

Recognising the different viewpoints acknowledges that the health professional and the Pakistani woman do not view health promotion similarly. Tailored communication is the key to successful health compliance and engagement but the Pakistani woman may turn to a number of sources to learn more about nutrition and health.

Clearly, two different viewpoints have not shown to be constructive to improving health issues such as obesity, T2D or CHD in Pakistani women. Questions need to be asked as to how to overcome entrenched cultural beliefs. For example, comparing responses in Gujarati women from 20 years ago (e.g. Khajuria and Thompson, 1992) to the current literature, why do SA women still believe stress causes diabetes? This requires understanding each other's viewpoints of health. No longer can a one-sided view be relevant for goal-setting strategies. New methods of health promotion need be explored. With this in mind, a new conceptual model with a dual aspect of different perspectives is proposed in Chapter 6.

## Chapter Six: Discussion

### 6.1 Influencing change and choices

The qualitative techniques and sociological reflection of the data provided insight into the perceptions of a cross-section of participants. The rich data, expressing the range of their influences, showed that changing habits, especially for the 1G, is challenging. A fictitious vignette with questions, inspired by Greenhalgh et al. (1998a) and Greenhalgh et al. (2005) were used to draw out perceptions of internal and external motivators and barriers. Cassidy (1994) recommended that such an instrument be flexible and open. Comparing responses allows for further data theories to emerge, driving qualitative analysis and allows it to develop (Green and Thorogood, 2004). The participants reported what motivated or prevented them from changing. By labelling the motivators and barriers as either internal (faith, culture, age, etc.) or external (husbands, community, education, etc.) it became clearer as to why some cannot be changed easily or that choice is not apparent (described in sections 6.1.1 and 6.1.2 below). Qualitative research in Oslo also labelled influences as predisposing, reinforcing or enabling (Mellin-Olsen and Wandel, 2005). To add to the complexity of data interpretation, the Manchester participants expressed that they lacked control while others wanted to be seen to give the right answers. Others boldly articulated their beliefs. A 1G 50-year old widow described forces within a typical Pakistani family: “...it’s somehow in our culture that men, they dominate” as well as with her children “....I’ve got a battle here”. This resistance to change by family members was reported previously (Bandesha and Litva, 2005). Prioritising the family’s wishes rather than change them, perhaps as an easier option, was similarly reported in a European study of older women (ages 65-98) (Sydner et al., 2007). Some participants did not consider health as important as they were “too busy” or “too lazy”. To them being “lazy” was that daily chores were done but it meant that they did not go outside to exercise (e.g. walking) or they did not take the time to cook separately for themselves (e.g. with less oil, as the healthier cooking method). Health professionals need to explain the importance of prioritising health (Hawthorne, 2001).

For this cohort of Manchester participants, motivators and barriers to healthier change are identified and listed (below) as either healthy and unhealthy, external or internal factors. Motivators and barriers overlapped (e.g. husbands and children can be perceived as either motivators or barriers to healthy changes and choice). The most important external force for healthier change, as expressed by both 1G and 2G women, was who provided the healthier information (besides traditional beliefs from elders). The motivators and barriers are not ranked.

#### **6.1.1 Motivators to healthier change and choices**

- Children (healthy and unhealthy) (external factor)
- Husbands (healthy and unhealthy) (external factor)
- Societal and cultural factors (healthy and unhealthy) (external factors)
- Doctors and other Health Professionals (external factors)
- Perceived support (external factor)
- Being well informed including knowing where to get information (external factors)
- Traditional beliefs and destiny (internal factors)
- Being younger (internal factor)

#### **6.1.2 Barriers to healthier change and choices**

- Children
- Husbands
- Traditional beliefs and destiny
- Societal and cultural factors
- Getting older
- Lack of information

- Language spoken (e.g. Urdu)
- Perceived lack of support

Appendix M further explores the motivators and barriers, internal and external factors, healthy and unhealthy choices leading to changes with relevant examples. The next section discusses ways to communicate with SA women and some of the possible challenges that arise.

### 6.1.3 Communicating health information

“....to change a culture, to empower [Pakistani] women....the answer is to educate girls”  
(Mortenson and Relin, 2007, p.209).

Trusting the source of health promotion is important to these participants. This is not a new concept. For example, in an Australian discussion paper on cross-cultural services were reported to be influential motivators in weight loss. Australian GPs contributed to the “overall health message” during consultations (Australian Government, National Health and Medical Research Council, 2005, p.32). The health professional creates a support structure by providing “individual motivation” and “belief in their ability to change” (Thomas, 2002, p.565). The Quran is a constant source for observing halal and haram foods but the participants in this cohort did not generally rely on it as a health resource. Understanding Pakistanis health behaviour “help-seeking” behaviours such as where they believe they should seek health information needs to be understood (Beishon and Nazroo, 1997, p.3). Knowing this, the health professional can create an opportunity and guide this woman to better health by recommending “small dietary changes” at a time (Greene et al., 1999, p.677).

The health promoter holds an important position of trust, as an “educated person”, valued resource for information (Stone et al., 2005, p.650) and a key person who can sustain the delivery of healthy messages over time. However success depends upon having knowledge of Pakistani cultural beliefs and behaviours (as noted in Table 5.2). The goal for health promoters is to set aside his/her beliefs and to communicate with cultural understanding (Anderson et al., 2003; Lee et al., 1998). This is as applicable now as it ever has been. The health professional communicates health risks related to overweight/obesity and at the same time, not under-estimating cultural internal and external influences. Health promotion encompasses increasing understanding of preventive care, which may not be well understood (Greenhalgh et al., 1998a). From the SA women’s perspective, some UK health professionals hold stereotypical views about them by making assumptions (Bandesha and Litva, 2005). Holman and Lorig (2000, p.527) stated that health professionals who take into account the patient’s view, result in “higher satisfaction” and a better partnership between them. This research intends to bridge any gaps (Bensing, 2000) in understanding between the Pakistani woman and the health professional.

For some time, it has been reported that health inequalities arise from a lack of communication (Acheson, 1998). Innovative means are used to communicate health information to ethnic groups, regardless of language (Lee et al., 1998). Some use storytelling (Greenhalgh et al., 2005), or music and dance as a way to convey information (Bandesha and Litva, 2005). Cassidy (1994, p.194S) advises that in collecting culturally sensitive data, “the layperson usually prefers to deal in stories...which relate to life experiences”. For Muslims, it was suggested that health promotion can take place outside a health environment, for example, at the Mosque or Madrasa (DeLeeuw and Hussein, 1991).

However, based on the outcomes of this research it is proposed that primary health prevention and promotion needs to be delivered by health professionals during consultations. The challenge is for health professionals to look beyond the obvious, such as language barriers or raised waist circumferences while using a less



authoritarian, more empathetic delivery, important for making changes (Fagerli, Lien, and Wandel, 2007). Seeing the Pakistani woman in her entirety, encompassing her cultural, social and household influences is important in order to understand her, enabling her, if possible, to have greater sense of control over her health (Bandesha and Litva, 2005). Combined with imaginative delivery, without pedantic methods (Greenhalgh et al., 2005), to educate the SA in sustainable health benefits. During consultations, communicating can be “frustrating” and distressing for the SA especially if a child is interpreting (Karsenas and Hopkins, 1987, p.20). The challenge for the health professional is to not alienate the patient. Expressions of disease may be different from their own needs to be understood (Chaturvedi, Rai, and Ben-Shiomo, 1997). To alienate or disregard the patient’s perspective can result in the advice being rejected (Bush et al., 1997).

With regard to nutrition and in order to overcome communication difficulties, both SA and non-SA health professionals benefit from understanding the SA health beliefs and what foods are considered healthy (the importance of good food is already culturally linked to health; Hawthorne, 2001). Communicating nutrition messages may not carry the same level of distress for the SA (as other types of health promotion) but communicating relevant information about their eating or cooking habits is essential in order for changes to take place. Focusing on and communicating positive dietary aspects of traditional foodways were reported to be effective in Dutch Afro-Caribbeans and Surinamese SA (Nicolau, van Dam, and Stronks, 2006). Reinforcing the healthy aspects of traditional Pakistani eating habits is recommended, for example:

- cooking from scratch daily which includes fresh ingredients;
- cooking with a variety healthy ingredients such as ginger and garlic;
- eating together as a family;
- the daily chapatti is a healthy part of the traditional Pakistani meal as long it is not cooked in oil or does not have fat added to the recipe. Without fat it has 120 kilocalories (The Ismaili Nutrition Centre, 2011)

And reinforcing aspects of a healthier diet (westernised view), for example:

- Smaller portions (HSE 2009, p.139) and visually demonstrating portion sizes (Khajuria and Thomas, 1992)
- Five portions of fruit and vegetables a day (Five a Day, 2011)
- Not skipping breakfast
- Cooking with olive oil (or other less saturated, healthier oils) (DiabetesUK 2011).

Other healthy eating recommendations relevant to SA food habits are found in Appendix L. Six elements of communication (language, ad hoc advice, over prescriptive advice, culturally appropriate and relevant information, underlying assumptions, confidence and skills to change) are summarised which will help healthy eating messages to be successfully incorporated into the SA diet. A tailored nutrition message is also suggested. Additionally, the health professional can refer the patient to DiabetesUK and BHF which provide literature and recipes for SA populations in different SA languages.

## **6.2 Health Action**

Health action now needs to combine a successful two-way communication along with goal setting that is sustained over time. Localised examples of a model for enhancing cultural competency for health professionals exist in the US, with an emphasis on quality (Anderson et al., 2003) but significantly lack the perspective from the ethnic patient. In the UK, there is another example of health action called DESMOND (Diabetes Education and Self-Management for Ongoing and Newly Diagnosed). DESMOND is a clinical education programme for diabetic patients or those at risk of having diabetes, run by nurses, diabetes specialist nurses and dietitians. This programme, based on theory and philosophical practice, focuses on the individual circumstances of each patient. Its value is that the patient is allowed to think about controlling or empowering their health. The DESMOND BME programme, specific for SA groups, is delivered in SA languages, reaching those who are active in local community venues (providing the diabetic attends these centres). The principles behind DESMOND are that the patient learns to not only

take control of his or her health, learn about food choices but also plan for their future (DESMOND, 2011).

However, early prevention is still required and promotion needs to reach a greater number of Pakistani women. The health action needs to take place frequently and ideally within the context of the health consultation. At this stage, a new model evolved.

### **6.3 Constructing health – A new model**

The overall health picture for UK Pakistani women has worsened over the years despite strides to address it. As her weight increases, so does her predisposition to T2D and CHD while she continues to believe that bad health is God's Will ("Inshalla"). The cost to her and to society increases annually as the Pakistani population steadily grows, particularly in the North West. The participants were aware of weight gain in themselves and in those around them as they "*see it everywhere*". Some explained this as normal (now that they live in a cold climate) or inevitable (e.g. after childbirth). Their responses reflected an inconsistent understanding of healthy, overweight and obese body sizes. Early prevention and screening for T2D, for example, have been shown to be important in Pakistani women particularly because they believe they are "*old*" at 38 and because of evidence that T2D often appears before the age of 40 (DiabetesUK, 2007) and at lower levels of obesity (Fishbacher, Bhopal, Steiner, Morris and Chalmers, 2009) in SA populations.

Previous research recorded different aspects of food intake, amounts of healthy and unhealthy ingredients in the Pakistani diet, all meaningful in relation to understanding the cause of her increased BMI and body size. Other UK and Norwegian qualitative research, reported repetitious responses from Pakistani women. Encouragingly, quantitative research has reported these women can, with sustained training, can learn and adapt to healthier eating over time. The HSE of

1999 and 2004 (with ethnic boosts) indicate that obesity risks (social and behavioural) appear to be “modifiable by the environment” (Smith et al., 2011, p.1). In parallel to this information, sociologists seek to understand her lifeworld and influences as a way to describe and understand her. The complexity of the Pakistani woman’s socio-cultural environment, her role and identities, and her health perceptions, were addressed in this research. Addressing these complexities in beliefs and behaviours is important as sometimes they not understood or respected by medical professionals (Greenhalgh, Helman and Chowdhury, 1998b).

Others described the healthiness of the traditional ingredients but were aware of the unhealthiness of the cooking methods. Older SA in other qualitative research expressed that it was “*too late*” for them to change their habits (Farooqi, Nagra, Edgar, and Khunti, 2000, p.297). In the US, African-Americans, during focus groups, expressed that “*the body cannot adapt to a new diet*” (James, 2004). Regarding body size perceptions in other ethnic groups, in American qualitative research it was reported that both Caucasian and African American women viewed “obesity as a disease over which they did not have much control” (Blixen et al., 2006, p.292). However, increased body weight is not always perceived as being unhealthy. For her and her community it might represent “good health, wealth and status” (Mellin-Olsen and Wandel, 2005, p.333), is bodily proof of economic success (Cassidy, 1994) or she is simply more comfortable with the extra weight (Kumar et al., 2006). An informed IG participant stated, “*In Asian people, when somebody is going to put on weight, they say ‘oh it’s very healthy, she’s very nice, and it’s good’ but it’s not good, it’s not healthy.*”

The key to creating a successful SA health promotion partnership is for the provider to be informed of the “patients’ lifestyles, attitudes, and beliefs” (Stone, Pound, Pancholi, Farooqi, and Khunti, 2005, p.648). Stress has been repeatedly reported by SA women to be the cause of their poor health. One participant (mother-of-eight grown-up children) perceived that diabetes was caused by “*stress*”. When asked what caused her stress, she said if her children had problems or were unhappy, then she was stressed. Earlier studies noted stress as the cause of diabetes (in ethnic

groups, Fisher et al., 2002; in Gujaratis, Khajuria and Thomas, 1992; in Pakistanis living in Norway, Mellin-Olsen and Wandel, 2005) and in CHD (Farooqi et al., 2000). A mother-of-three from Rawalpindi understood a connection between obesity and T2D but believed that once you have diabetes then weight increased: *“I think if they have diabetes then their weight can increase like my two friends.”*

This current research also demonstrates that the HBM (and other health models), incorporating biomedical knowledge are not always appropriate and may be too one dimensional to represent 1G and 2G Pakistani women. Greenhalgh (1997, p.10) wrote the biomedical model was too “narrow” to provide solutions or explain problems in the UK SA. Although Kelly (2005) reported that no global model exists with universal applicability, the outcomes of this research inform the development of a framework for a new model. Therefore the Health Action Transition conceptual model is proposed.

#### **6.4 Health Action Transition (HAT) model**

Culturally tailored programmes (e.g. DESMOND, Diabetes National Service Framework, 2008, etc.) are educational for the diabetic SA patient, however the Health Action Transition (HAT) model focuses on prevention and setting health goals together in a one-to-one consultation with a health professional. The HAT model is unique and is neutral as there is no implicit racism. It arose out of the interpretation of the phenomenological data and the outsider understanding of the Pakistani lifeworld. Within this lifeworld she perceives her internal and external influences and responds to them appropriately. A particular strength of the HAT model is that wider structural factors are represented (Bury, 1991), relevant to the Pakistani woman’s perspective. This patient, who may or may not be constrained by her structural factors, learns with the guidance of a health professional, to move towards Agency. At this stage, she is able to act more independently and make free choices. Health promotion can also positively use strong structural factors. For example, the woman’s sense of duty to her family means she is caring for their long-term health by cooking healthier food.

The HAT model begins to explain the complexity of the lifeworld, often lacking in behavioural health models and provides tailored health information (Kelly, 2006), demonstrating that health promotion needs to work with, not against Pakistani cultural norms and beliefs (Lawton et al., 2006).

The title of the model summarises the issues addressed in this research that affect the Pakistani women (particularly the 1G). **Health** because she faces unresolved and ongoing health problems; **Action** because it is acknowledged that she needs, together with a health professional, to take action to improve her health; and **Transition** because this process takes time. The HAT model, designed in response to the findings, focuses on the Pakistani woman but also educates the health professional about her socio-cultural structures. The model refers primarily to Pakistani Muslims but may also relate to other Muslims groups. Incorporating these specific socio-cultural structures, the HAT model explains the layering of traditional Pakistani views and influences to the outsider (and insider). The model is person-centred, culturally and socially appropriate and considers the priorities of the Pakistani woman as reported by her. It is different, as far as it is known, as it describes uncontrollable structures of the Pakistani lifeworld and the controllable (i.e. modifiable) influences (through knowledge) provided by the health professional. No time frame is given for these changes but implies a forward and continuous movement with a positive health related outcome from awareness through to initiation and maintenance of action (as it has been reported that effective engagement takes time; NHS Race for Health, 2010). It also demonstrates a sustained educational process and goal setting primarily with GPs. Other environments may contribute to creating additional awareness (e.g. SA food suppliers and stores, community centres, children, husbands, etc.). She maintains her traditional way of cooking and eating patterns but becomes more aware of healthier habits (e.g. using less oil or salt). Ultimately, the health professional motivates her to avoid becoming overweight and reinforces how obesity and its inherent health risks affect her. Step-by-step, she learns how to take responsibility by taking control of her health, applying this knowledge to her family and community.

The HAT model recognises that some social forces may be uncontrollable for her (e.g. Islamic food laws, family roles, etc.) and highlights these in separate (red) bubbles. It also acknowledges differences in education, place of birth (urban or rural regions of Pakistan) and the language she speaks and aims to address women active or not active in their community. Taking these complex issues into consideration and promoting healthy eating, as a means to counteract obesity in the Pakistani community, is recognised as being essential. Even if health information is provided in the mother tongue, other researchers have cited non-compliance and barriers to healthy living concepts (Greenhalgh et al., 1998a; Hawthorne, 2001). Illiteracy and a “lack of educational experiences” have been reported previously in Pakistani women in UK research (Hawthorne, 2001, p.378) however the HAT model acknowledges and aims to overcome these challenges through sustained health promotion.

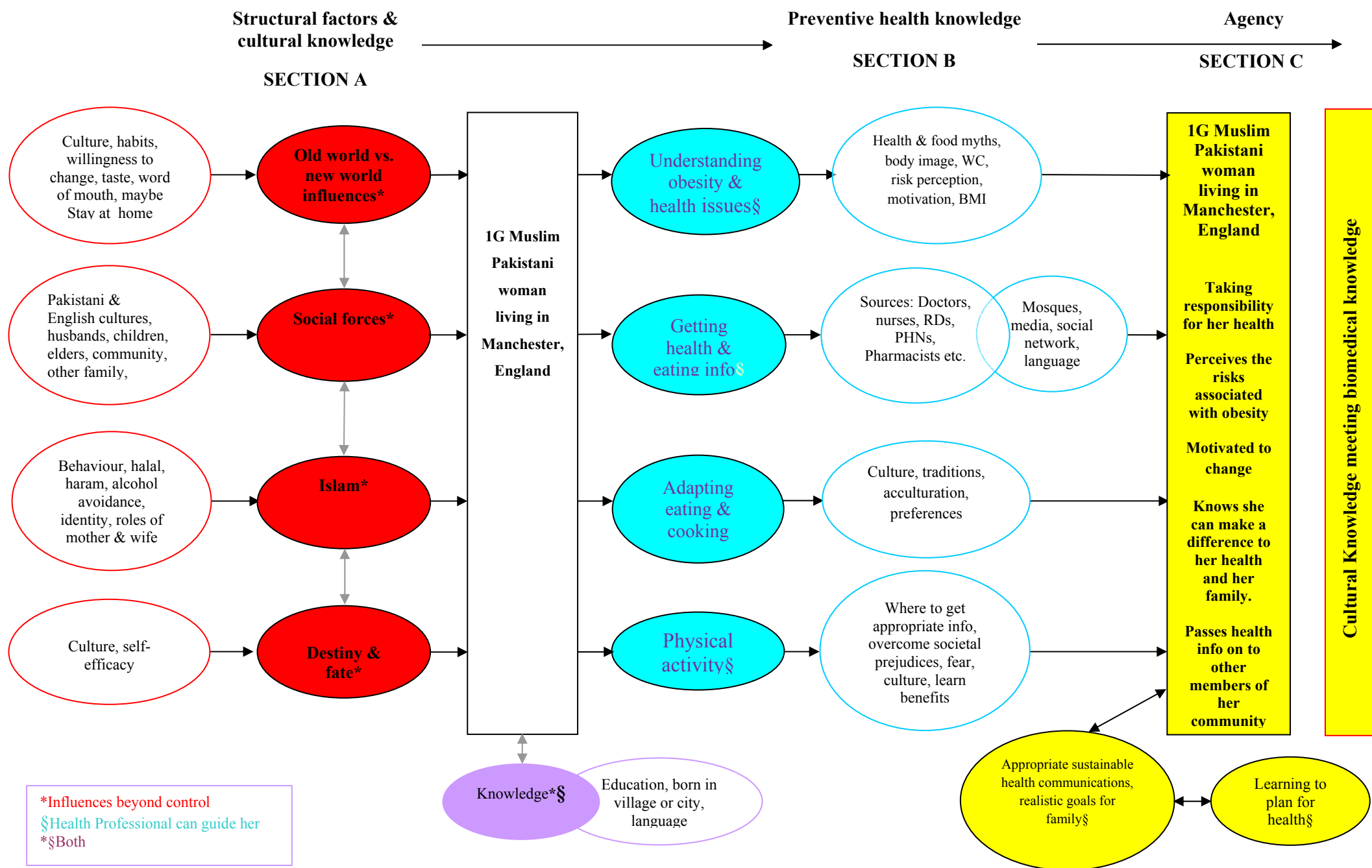
The HAT model demonstrates the complexity of the influences interwoven into her beliefs and behaviour and helps the health professional “engage” with her (Campbell and McLean, 2003, p.250). By separating her identities (Pakistani and Muslim), and describing these structural factors, it allows the health professional to better understand this woman. Thus because of its multi-directional (although it is intended to be unidirectional) and multi-dimensional nature, the model can be used to tailor health information especially preventive health and successfully combine her beliefs with biomedical knowledge. It informs and enables the health professional to become more culturally aware and sensitive to the Pakistani woman, particularly the 1G woman, and her family. Sidel (1998, p.364) urged physicians, in particular, to recognise their social responsibility, working “collaboratively with the patient” or as he called it “social medicine” in order to greatly benefit the patient. The health professional, by understanding the Pakistani woman’s values of caring for her family and the importance of this duty (as well as looking after herself), can encourage these as “powerful” resources and counter her belief of “inevitability of suffering in life” (Dhooper, 2003, p.71).

For health professionals not fully cognizant of the influences outlined in Section A (see Figure 6.1 below) it is imperative that the health awareness of the model is

underpinned with an awareness raising aspect (e.g. reasons for a healthier body size and explaining risk) and learning about health motivators which is the focus of the review section of this report.

## **6.5 HAT model**





**Figure 6.1 HAT Model**

## 6.6 Explanation of the Model

The model is in three parts: Pakistani cultural knowledge and structural factors (**Section A**); Preventative health knowledge and influences where education takes place (more westernised views) (**Section B**); Cultural knowledge meets biomedical knowledge in her lifeworld in Agency (**Section C**). As an intuitive framework, the HAT model represents a sociological description of the woman's culture as a way to inform a non-Muslim health practitioner. The HAT model may resemble figurational sociology for sport as explained by Norbert Elias (Norbert Elias Foundation, 2011). It proposes that health professionals work with the Pakistani woman, and not against her socio-cultural ways, by learning about them.

The clear rectangular box on the left (as part of Section A) represents the woman not yet taking responsibility for her health or is possibly unmotivated (or not aware that she needs) to act as perceived by the health professional. The red circles represent her uncontrollable influences. Moving to the right, the circles then break down more concepts related to her understanding of health, obesity, foodways and cooking patterns. Section B (blue circles) suggests that the Pakistani woman will be ideally influenced by health professionals (e.g. doctors, nutritionists, public health nutritionists, pharmacists, etc.) and not just by her peers and elders (while the importance of their influence is recognised). These are the controllable influences or modifiable environmental influences. The health professional is in a strong position, as a trusted person, to influence or instigate healthy changes and choices. This woman will need sustained guidance on staying healthy and increase compliance. Rather than considering weight gain as inevitable with childbirth and age, which Crossley (2004) claimed is an abdication of responsibility; once informed, it is up to this woman to take control of her health. The research proposes that the health professional, by taking these complexities into consideration, can encourage healthier behaviours and encourage goal setting in the Pakistani woman, who will then extend them to her family and community. Ultimately, the goal is for her to take responsibility for her health, which is as important for her as a Muslim, a Pakistani, a wife, mother and grandmother. She will understand the health risks related to being overweight or obese (either in herself or her family members).

The yellow circles on the right (Agency, Section C) are some proposed actions suitable for the Pakistani woman, which take into consideration the complex range of phenomena of the four vectors of causation (organizational, environmental, socio-cultural and population-wide) as described in depth by Kelly et al. (2009).

Culturally appropriate healthier changes are acceptable to her and her family. The health professional, being sensitive to this woman's strong sense of fate and destiny, can promote preventive measures and help her to realise that she can take control of her long-term health. Sections A, B and C also relate to the health professional from the perspective of **A**wareness, **B**uilding and **C**onstruction of health. Together, the Pakistani woman and the health professional can work to achieve healthier individual outcomes.

The HAT model, once tested and validated, is relevant for use by: dietitians, nutritionists, GPs, nurses and health trainers (community health professionals) with a view to "increase health literacy and improve health by creating a link between the NHS and hard-to-reach communities" (INFORMED Newsletter, 2010). It intends to close the inequality health gap for overweight and unhealthy Pakistani women. Training and cultural education would underpin the use of the model.

This current research provides an additional strategy to help guide the health professional and improve the quality of life of the Pakistani woman, particularly the 1G woman. The focus of the HAT model is important for the 1G woman because she is likely to live with 2G family members and is able to influence family eating and cooking habits. Convincing this woman presents challenges such as her beliefs that traditional foodways are already healthy. Her role as an elder is important as an educator who sees that younger family members and her community are predisposed to higher rates of (and risks from) obesity due to less healthy, westernised eating habits which converge with the host population (Smith et al., 2011). The HAT conceptual model, centred on the Pakistani woman, is proposed as a tool to implement and design health education interventions. Addressing health issues in this community can be difficult but the HAT model is a new way to achieve healthier

outcomes, and once tested, creates opportunities towards obtaining these goals as the HAT model intends to reach all Pakistani women.

## **6.7 Strengths and limitations of the research**

### **Strengths**

Qualitative techniques allow for in-depth understanding, addresses the gap in current research, in unanswered meanings, moves research and knowledge forward, particularly for the Pakistani community;

Research includes wide range of participants from the Pakistani community (including those who are mainly based at home);

Insider/outsider aspects of research, enhanced by researcher triangulation;

Enhanced validity of the research due to increased rigour which improves qualitative research (e.g. data saturation, triangulation with other qualitative researchers, member-checking with some of the participants, etc.);

Sociologist and Health Psychologist were included in research team;

Research is topical due to the Government's aim to tackle health inequalities particularly within BME communities;

### **Limitations**

Broader applicability of the model needs to be tested (e.g. Pakistani woman living in London);

Physical Activity was a theme but not central focus of research (could have collected more data on this-other research has addressed this);

Data concerning the socio-economic status of the women was not collected;

Translation of interviews means that the non-South Asian researcher experiences some loss of control or precise meaning;

Limitations of qualitative research (i.e. fewer numbers of participants than quantitative research);

No data collected on length of stay in the UK from the 1G women;

Limited information collected on participant's level of education (not reported due to poorly worded question used in the demographic questionnaire (see Appendix G) ;

Dietary intake was not collected and assessed in order to lessen participant burden;

Body size images were not reflective of the SA woman's body shape but more of the Caucasian woman (Note: at time of research these were the only body images found online); and

The literature review of psychological theoretical models was not extensive.

## **Chapter Seven: Conclusion**

Health promotion and educational interventions, focusing exclusively on the British Pakistani woman, are shown to be important in order to address health inequalities particular to her. This research set out to explore and provide further insight into this woman living in Manchester by representing her structural knowledge and influences. Structural factors need not limit choice instead it was shown they can create health promotion opportunities. Food habits and beliefs were described as well as the social construction of obesity and other socio-cultural identities. By reporting on her nutrition habits and giving meaning to her socio-cultural beliefs and behaviours, a truer picture of the participants emerged. By merging the disciplines which are exclusive to a Pakistani woman living in the NW, it is possible to understand the participant and perhaps understand why she will not always agree with western health promotion. Highlighting her uncontrollable and controllable factors, motivators and barriers, helps the health professional in ways to better communicate tailored health information to her. After a two-stage analysis, the Pakistani women, active or housebound, were represented via the HAT conceptual model (Figure 6.1). Once tested, it aims to address the complex socio-cultural issues and assist health professionals by increasing their Pakistani cultural awareness.

### **7.1 Future of this research**

As a learning tool, the HAT model explains the complexity of beliefs and eating practices and reinforces the importance of preventive health and long term sustained health promotion for the Pakistani Muslim woman in North West England. Once tested and validated, another way to reach more health educators is for the HAT model to be integrated into a training toolkit. Or alternatively be used in a training workshop, similar to the BDA workshop (2006), to teach dietitians and public health nutritionists about the foodways of British Pakistanis. The research was published (Appendix N) and later hopes to publish the Literature Review (Chapter Two), as it is a comprehensive overview, and to the author's knowledge, not previously published.

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## Appendix A Ethical approval

Ref: JW/alc

Thursday, 28 July 2005

Alison Ludwig

[REDACTED]

[REDACTED]

[REDACTED]



UNIVERSITY COLLEGE  
CHESTER

Dear Ms Ludwig

**Project Title:** Pakistani women's dietary and lifestyle, health, diversity and change in relation to obesity: understanding the issues through research

The Department of Biological Sciences Panel for Ethical Consideration are pleased to inform you that you have been given full approval to proceed with your study.

Yours sincerely

A handwritten signature in black ink, appearing to read 'John Williams'.

Prof John Williams  
Head of Department  
Department of Biological Sciences

Tel: 01244 513081  
Fax: 01244 511348  
Email: john.williams@chester.ac.uk

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University College Chester, Parkgate Road, Chester CH1 4BJ  
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## **Appendix B Field notes of ethnographic observations and reflections**

Field notes taken in Longsight and Rusholme, Greater Manchester (on 8 and 21 November 2005) (written in first person) and some journal notes from focus group sessions:

With a heightened sense of awareness in an unfamiliar environment, the I wrote:

“I explored the “Curry Mile” in Rusholme, Manchester on my own. Along the stretch of road, I felt the foreigner and the outsider as I passed many S. Asians. This made me reflect that I was very much in their world. I walked into delis, shops and cafes and noticed mainly men working and shopping (except in the women’s clothing shops). This would not be the case in any other British high street. My presence was noted as I entered the shops. I was curious to sample SA sweets in a patisserie. Ingredients included such things as a variety of nuts (e.g. pistachios), butter and ghee, gram flour, lentils, sugar and honey and they were given names I had never heard of (e.g. pinny, besam or cherry burfi, reguli, haleb, etc.). Some diabetic sweets were sold which were made mainly with carrots. The selection I tried was unusual, sweet and tasty. One man working there was a qualified doctor, recently arrived from Pakistan. He was interested in my research but said that Pakistani women were not independent like English women and many were behind “closed doors” and will not want to change. In a nearby café, I had mint tea and again noticed only male customers and servers.

In a separate journey to another part of Manchester, I visited a SA food shop. I was amazed and impressed by the variety of dried legumes, some I had never seen or heard of. I noted the array of unpackaged fresh fruits and vegetables – again many unfamiliar to me. I noticed SA women sniffing and testing the vegetables for freshness (e.g. with okra). I saw big bags of rice, herbs and spices – all very inexpensive – as well as huge containers of vegetable oil, which seemed to mean that tremendous amounts were used and consumed. Some women stared at me, as I was clearly a stranger in their territory. Despite this I did not feel unwelcome and everyone was friendly and chatted. When purchasing her food, I noticed one Muslim woman avoided glancing at the male shop assistant.

It appeared to me that Pakistanis were re-creating the Pakistani lifestyle here yet some said how they would feel better (health-wise) in Pakistan. Illnesses disappeared once they returned to Pakistan. I was told that food in Pakistan was healthier while British food was full of chemicals (thus unhealthy and lead to obesity).

During a focus group, one 33-year old 2G Pakistani women told a story of her father who was encouraged by his GP to walk for his health (post heart attack). He did this every day around a lake and was soon followed by some traditional women. After some time one woman lost weight, decreasing her blood pressure. She did not apparently connect walking with her improved health but instead said it was the “magic” of the lake which helped her.”

## Appendix C Participant Information and Informed Verbal Consent



Department of Clinical Sciences

Direct Line 01244 511431  
Fax 01244 511310

Hello, my name is Alison Ludwig and I am a nutrition researcher working with Dr. BF from the University of Chester. I am studying eating and food habits in Pakistani women and some health beliefs, which you might have that are connected to food and eating. Any information, which you might like to share about what you and your family eat, and what influences your habits – this information would be very welcome. Overall, I would like a 'picture' of your eating and meals and what you believe food and eating has on your health. Where do you get information for your health and your family's? What information would you like to know about healthier eating and what would motivate you or stop you? Tell me what you think.

Also, when do you believe that a woman is obese or not? I will show you images of different women's body shapes.

We would like to collect some information about you, for example, your age, if you have children or if you are married and other questions. Only answer the questions that you want to answer. You do not have to answer any questions if you do not want to.

I will use what you have said today to inform health professionals who may not know very much about the Pakistani culture. We are asking you to help us to teach people such as doctors or nutritionists and dietitians about the Pakistani culture.

Everything you say to me today will be kept strictly confidential. I guarantee that no one will know your name or the name of X (Community Centre) in the research. No one will know what you in particular have said. I assure you of complete confidentiality. The University of Chester has given me permission to talk with you today so I must follow their rules. If you do not want to share in the discussion or want to end the discussion at any time, please feel free to leave or to not contribute. You are not required to answer anything if you do not want to.

Thank you very much for participating in our research. If you have any questions for me about this research, we will be happy for you to phone us. R and S have these telephone numbers. I do not speak Urdu or Punjabi but I will find someone who does.

Do you all agree with what you have just been told? Please indicate yes or no.

**Thank you for your time.**

---

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## **Appendix D   Structured Fictitious Vignette (Version 1)**

Farah is a 38-year old Muslim Asian female of Pakistani origin. Farah came to live in the UK when she was 18 years old with her husband and first- born child, a baby girl named Begum. Farah was born in Rawalpindi. Farah has two brothers who worked on a large farm owned by a local landlord. Her mother and 3 sisters cooked and cleaned for the landlord's wife and family and helped on the farm along with many other villagers at harvest time. The village Farah lived in was a flood area, Azad Kashmir. The house she lived in was 2 rooms and owned by the landlord. Farah's family received a small financial payment of grain and vegetables as payment for their work on the land as well as living rent-free.

*(Ask ladies): What are your thoughts on the story- is it typical of the country where you come from?*

*What do you think was a typical diet for such a family?*

At 38, Farah now has 4 children – ages 12 and above. She lives near Manchester. Farah has never learned English and relies on her children to translate for her. Farah's body has now changed (*show images of different women's body shapes*) but her family tells her this is normal for her age and for the number of children she has had. Farah thinks her health is not too good but she has many other things to think about. She tires easily and often feels thirsty.

*(Ask ladies): What do you think Farah's typical diet (i.e.what she eats) is now she lives in Manchester?*

*Why do you think her body has changed? From picture, what size do you think she is now?*

*Do you think that she should be concerned about being this size?*

*Why?*

*What do you think she should do about it?*

*Why do you think she says her health is not so good?*

Farah watched a programme on the Asian TV station. The presenter discussed the importance of keeping body size low and that not to see large body size as a natural result of old age and having babies. She also emphasised the link between an increased body size or what is called "obese" with many health problems such as diabetes and heart disease. The presenter told viewers that either changing the diet or increasing physical activity or both in combination could alter body size. This information makes Farah confused as to what to do next.

*(Ask ladies): What do you think she should do?*

*How can she start to help herself and her family?*

*What do you think she needs to know?Where can she get help?*

*What may hinder her?*

*What will motivate her to change her diet?*

*As Farah is obese, tell me what you understand about diabetes and being obese.*

*How are they connected?*

*What can she do every day to make a change in the way she and her family eat?*

## **Appendix E Interview Schedule**

### **Consent from participants first.**

1. Tell the person next to you what you had for dinner last night and then report this back to the group. Please describe in detail.
2. What are your thoughts about the meals described? Are these unusual for you as well? Are there foods you eat more frequently than others?
3. What are your opinions on current information on healthy or unhealthy food? Are you aware or conscious of healthy eating message when you buy/cook/prepare/eat food? Why?
4. What do you think about the fact that the government in this country thinks there is a problem with obesity? Do you think it can be related to certain types of diets?
5. What prevents you and your family from eating a healthy diet? Why?
6. What enables you and your family to eat more healthily? Why?
7. Please paint a picture for me of your meal times.
8. What other aspects of your life influence the food choices you make? (e.g. family, community, health professionals, faith, media, etc.)
9. Where do you and your family turn to for trustworthy advice on healthy eating?
10. Of all the things you could say which is the most important or effective?
11. If someone in your family was diagnosed with diabetes, would it be easier to change his/her diet or to exercise more in order to lose weight? Tell me what you think.
12. How do you link obesity with diabetes or coronary heart disease? Please describe.

### **Show ladies woman's body images.**

**Thank you very much for your time today.**

## **Appendix F Pilot Study**

### **Fictitious vignette used for Pilot Study with Bangladeshi women in London (read by a female Bengali translator) conducted on 17 May 2005**

Farah is a 38-year old Muslim Asian female of Bangladeshi origin. Farah came to live in the UK when she was 18 years old with her husband and first-born child, a baby girl named Kawser. Farah was born in Borkapon, a rural village in Bangladesh. Farah has two brothers who worked on a large farm owned by a local landlord. Her mother and 3 sisters cooked and cleaned for the landlord's wife and family and helped on the farm along with many other villagers at harvest time. The village Farah lived in was a flood area. The house she lived in had 2 rooms and was owned by the landlord. Farah's family received a small financial payment of grain and vegetables for their work on the land as well as living rent free.

*(Ask ladies): What are your thoughts on the story – is it typical of the country where you come from?*

*What do you think was a typical diet for such a family?*

At 38, Farah has 4 children – ages 12 and above. She lives in Tower Hamlet. Farah has never learned English and relies on her children to translate for her. Farah's body has now changed (as shown in the picture) but her family tells her this is normal for her age and for the number of children she has had. I asked Farah about her health and she said she didn't think it was good. She tires easily and often feels thirsty.

*(Ask ladies): What do you think Farah's typical diet (i.e. what she eats) is now?*

*Why do you think she has changed? From the picture, what size do you think she is now?*

*Do you think that she should be concerned about being this size? Why?*

*What do you think she should do about it, if anything?*

*Why do you think she says her health is not so good?*

Farah watched a programme on the Bangla TV station. The presenter discussed the importance of keeping body size low and that not to see large body size as a nature result of old age and having babies. She also emphasised the link between an increased body size or what is called "obese" with many health problems such as diabetes and heart disease. The presenter told viewers that either changing the diet or increasing physical activity or both in combination could alter body size. This information confuses Farah as to what to do next.

*(Ask ladies): What do you think she should do?*

*What do you think she needs to know?*  
*Where can she get help?*  
*What may hinder her?*

## **Appendix G Demographic Questionnaire**

1. What is your age?
2. Are you married or not?
3. Do you have children? How many?
4. Are your children eligible for school meals?
5. Where were you born? If in Pakistan, please name place.
6. What is your cultural background (i.e. British Pakistani or Pakistani or other)?
7. How old were you when your education finished?
8. How many times a week do you prepare Pakistani meals?
9. How many times a week do you eat English food?
10. Do you eat away from home sometimes? How many times a week?



## Appendix H Summary of Quantitative Research

Quantitative research	Participants	Summary	Key Results
Kassam-Khamis et al., 2000  UK	92 Households (n=291) in London  Bangladeshs, Pakistans and Ismailis	<p>Used 7-day food records. They recorded a total of 372 seasonal “summer” (April to September) dishes. Bangladeshi=149; Pakistani=104 and Ismaili=119;</p> <p>323 “winter” (October to March) dishes. Bangladeshi=115; Pakistani=103 and Ismaili=105.</p> <p>The findings suggest that unmeasured fat added during cooking account for fat differences rather than fat already present in the meat (e.g. higher fat in lamb or mutton).</p> <p>Pakistani and Bangladesh recipes had higher fat on average (12.6g/100g for Pakistani dishes) and 12.7g/100g for Bangladeshi dishes). Ismaili dishes had the lowest amount of fat at 8.1g/100g.</p>	<ol style="list-style-type: none"> <li>1. For the first time, the research compared in detail the composition of traditional Muslim dishes (e.g. fat, energy, macro- and micro-nutrients).</li> <li>2. Diversity of unmeasured ingredients within the same foods for each group.</li> <li>3. Of all the dishes only six were common to the 3 groups: meat and chicken curries, mixed vegetable curry and staples such as pilau.</li> <li>4. Steaming or grilling, as western cooking methods, may not be adopted as they are not considered traditional.</li> <li>5. SA diet and obesity</li> </ol>

Quantitative research	Participants	Summary	Key Results
			information still lacking
<p>Simmons and Williams, 1997</p> <p>UK</p>	<p>Survey using questionnaire</p> <p>Total Diabetic participants <b>n=612</b></p> <p>Pakistani Muslims <b>n=76</b>  Gujarati Muslims <b>n=28</b>  Punjabi Hindus <b>n=25</b>  Gujarati Hindus <b>n=47</b>  Punjabi Sikhs <b>n=118</b>  “Europeans” <b>n=304</b></p>	<p>Study found four factors influenced food consumption:</p> <p>Region  Religion  Health messages  Acculturation</p>	<ol style="list-style-type: none"> <li>1. SA ate fewer daily meals</li> <li>2. Evening meal was 2/3 hours later than Europeans</li> <li>3. No major differences between within groups regarding domestic activities or meal times</li> <li>4. SA ate “English” meals (i.e.. chips, burgers, crisps) at least once a week</li> <li>5. Health messages failed to penetrate the community</li> <li>6. Tailoring health message to SA communities with T2D</li> </ol>
<p>Hawthorne, 2001</p> <p>UK</p>	<p>Randomised control trial</p> <p>Pakistanis men and women in Manchester</p> <p>Control group <b>n=46</b>  Intervention group <b>n=59</b></p>	<p>41% of intervention group and control group was illiterate</p> <p>Study conducted over a six month period.</p> <p>Intervention group of women improved their food knowledge scores from 71% to 85%; <math>P &lt; 0.021</math> in 8 areas related to diabetes (i.e.</p>	<ol style="list-style-type: none"> <li>1. Rationale for long-term planning (i.e. yearly screenings) was better understood by literate participants</li> <li>2. Study showed that appropriate and sustained health promotion can change health knowledge in Pakistani women (even</li> </ol>

Quantitative research	Participants	Summary	Key Results
		food knowledge, physical complication of diabetes, reasons for controlling sugars, annual checkups, etc.).	the less educated).  3. Study showed that less educated Pakistani women can improve their knowledge levels if education is appropriate to them
Jonnalagadda and Diwan, 2005  USA	Telephone survey  Men <b>n=162</b> Women <b>n=64</b> Ages 50+  Average length of stay in the US was 25 years  SA Indians living in the US 49% earned >\$100,000 p.a.	41% were vegetarian  74% had low fibre diets  30% consumed a high fat diet	1. Health promotion for these participants need to take into consideration social support and is equally as important in influencing perceived control of their own health.  2. Future research must explore in depth factors that promote or hinder healthier diet for this group.  3. Only a preliminary understanding of factors influencing healthy behaviours in this diverse group

Quantitative research	Participants	Summary	Key Results
Sevak et al., 2004  UK	SA women (n=100)  FFQ and 24-hour recalls collected by telephone over a one-year period	Population-based case-control study of diet and breast cancer for SA women  Participants completed at least nine 24-hour recalls  227 recipes in nutrient database were used to analyse the FFQ information  Diversity between SA recipes were included in FFQ	<ol style="list-style-type: none"> <li>1. The FFQ provided a valid assessment of macro- and micro-nutrients in this population (except Vitamin A).</li> <li>2. The FFQ, specific to SA women, was comparable to other FFQs developed for western populations.</li> <li>3. This FFQ is a tool that can be used to examine the diet in relation to chronic diseases in SA.</li> </ol>
Kumar et al., 2006  Norway	<p>Cross-sectional population based study</p> <p>Pakistani women (<b>n=196</b>) Who originated mainly from rural areas in Pakistan They lived, on average, 15.5 years, in Oslo</p> <p>Sri Lankan participants (n=398) averaging 8 years in Oslo</p>	<p>Participants completed a health questionnaire and had height, weight, waist and hip measurements taken.</p> <p>The Pakistani women had central obesity and higher waist-hip ratios (WHR <math>\geq 0.85</math>) compared to the Sri Lankan women.</p> <p>Obesity rates for Pakistani women was 52.4%</p> <p>Obesity rates for Sri Lankan women was 54.3%</p> <p>The participants originated from</p>	<ol style="list-style-type: none"> <li>1. Pakistani and Sri Lankan women had the highest WHR when compared to their BMI.</li> <li>2. The authors recommended that for these women, improving their health required long-term strategy of early prevention</li> <li>3. A “burgeoning epidemic” of obesity loomed.</li> </ol>

Quantitative research	Participants	Summary	Key Results
		<p>rural areas in Pakistan, were less educated than their urban counterparts and were more obese.</p> <p>The participants also participated in the Oslo Health Study.</p>	
<p>Johansen et al., 2009</p> <p>Norway</p>	<p>RCT with a seven-month intervention</p> <p>SA women living in Oslo (<b>n=198</b>) Aged 25-63 years</p> <p>Intervention group (<b>n=101</b>) Control group (<b>n=97</b>)</p>	<p>Height and weight were measured at baseline and after intervention.</p> <p>Intervention was six sessions of two hours each over a seven month period of culturally adapted lifestyle education (inc. Diet and physical activity)</p> <p>Authors used Stages of Change construct in order to change the intentions of these women</p>	<ol style="list-style-type: none"> <li>1. Culturally adapted education had the “potential” to change the women’s diets however modest they might be</li> <li>2. Changing from vegetable oil to rapeseed or olive oil (<math>P&lt;0.011</math>)</li> <li>3. Increased daily fruit and vegetable (<math>P=0.043</math>)</li> <li>4. With intention to reduce sugar intake, no significant difference between control and intervention groups at baseline. The intervention group shifted from pre-action to action (<math>P=0.019</math>).</li> <li>5. This study shows that</li> </ol>

Quantitative research	Participants	Summary	Key Results
			Pakistani women did modify their diet to include healthier options with sustained education.

## Appendix I Four other versions of fictitious Vignette

### (Versions 2-5)

#### Version 2

Farah is a 38-year old Muslim Asian female of Pakistani origin. Farah came to live in the UK when she was 18 years old with her husband and first- born child, a baby girl named Begum. Farah was born in Rawalpindi. Farah has two brothers who worked on a large farm owned by a local landlord. Her mother and 3 sisters cooked and cleaned for the landlord's wife and family and helped on the farm along with many other villagers at harvest time. The village Farah lived in was a flood area, Azad Kashmir. The house she lived in was 2 rooms and owned by the landlord. Farah's family received a small financial payment of grain and vegetables as payment for their work on the land as well as living rent-free.

*(Ask ladies): What are your thoughts on the story- is it typical of the country where you come from?*

*What do you think was a typical diet for such a family?*

At 38, Farah now has 4 children – ages 12 and above. She lives near Manchester. Farah has never learned English and relies on her children to translate for her. Farah's body has now changed (*show images of different women's body shapes*) but her family tells her this is normal for her age and for the number of children she has had. Farah thinks her health is not too good but she has many other things to think about. She tires easily and often feels thirsty.

*(Ask ladies): What do you think Farah's typical diet (i.e.what she eats) is now she lives in Manchester?*

*Why do you think her body has changed? From picture, what size do you think she is now?*

*Do you think this is a healthy weight?*

*Do you think that she should be concerned about being this size?*

*Why?*

*What do you think she should do about it?*

*Why do you think she says her health is not so good?*

Farah watched a programme on the Asian TV station. The presenter discussed the importance of keeping body size low and that not to see large body size as a natural result of old age and having babies. She also emphasised the link between an increased body size or what is called "obese" with many health problems such as diabetes and heart disease. The presenter told viewers that either changing the diet or increasing physical activity or both in

combination could alter body size. This information makes Farah confused as to what to do next.

*(Ask ladies): What do you think she should do?  
How can she start to help herself and her family?  
What do you think she needs to know?  
Where can she get help?  
What may hinder her?*

*What will motivate her to change her diet?  
As Farah is obese, tell me what you understand about diabetes and being obese. How are they connected?  
What can she do everyday to make a change in the way she and her family eat?*



### Version 3

Farah is a 38-year old Muslim Asian female of Pakistani origin. Farah came to live in the UK when she was 18 years old with her husband and first- born child, a baby girl named Begum. Farah was born in Rawalpindi. Farah has two brothers who worked on a large farm owned by a local landlord. Her mother and 3 sisters cooked and cleaned for the landlord's wife and family and helped on the farm along with many other villagers at harvest time. The village Farah lived in was a flood area, Azad Kashmir. Now Farah has 4 children – ages 12 and above and they live near Manchester. Farah's body has changed (*show images of different women's body shapes*) but her family tells her this is normal for her age and for the number of children she has had. Farah thinks her health is not too good but she has many other things to think about. She tires easily and often feels thirsty.

*(Ask ladies): What are your thoughts on the story- is it typical of the country where you come from? Have you heard this type of story before?*

*What do you think was a typical way of eating for such a family in Pakistan?*

*What do you think Farah eats every day now she lives in Manchester?*

*Why do you think her body has changed? From picture, what size do you think she is now?*

*Do you think this is a healthy weight?*

*Do you think that she should be concerned about being this size? Why?*

*What do you think she should do about it?*

*Why do you think she says her health is not so good?*

Farah watched a programme on the Asian TV station. The presenter discussed the importance of keeping body size low and that not to see large body size as a natural result of old age and having babies. The presenter told viewers that either changing the way she eats or increasing physical activity or both in combination could alter body size. This information makes Farah confused as to what to do next.

*(Ask ladies): What do you think she should do?*

*How can she start to help herself and her family?*

*What do you think she needs to know?*

*Where can she get help?*

*What may hinder her?*

*What will motivate her to change her diet?*

*As Farah is obese, tell me what you understand about diabetes and being obese. How are they connected?*

*What can she do everyday to make a change in the way she and her family eat?*

*How do you think Farah can increase her physical activity?*

*Do you think this is something Farah should consider? What should she do?*

Farah's sister, Parveen, is 46 and also lives in Manchester. Parveen has been having headaches and her GP told her she has high cholesterol and high blood pressure. The GP recommended a tablet and told Parveen to see a dietitian so she can change the way she eats (for example, reducing her saturated fats from meat and increasing her olive oil amounts instead of ghee).

*(Ask ladies): What do you think Parveen will think about this? What are your thoughts on what Parveen will do with the way she cooks and eats?*

*The dietitian said Parveen should lose weight. Do you agree with this? Do you think this is important?*

*Should Parveen change her diet or exercise more? What do you think?*

#### Version 4

I want to tell you a story about a woman named Farah, a 38-year old Muslim Pakistani. Farah came to live in the UK when she was 18 years old with her husband and first- born child, a baby girl named Begum. Farah was born in Rawalpindi. Now Farah has 4 children – ages 12 and above and they live near Manchester. Farah knows that her body has changed (*show images of different women's body shapes*) and she has gained weight but her family and friends tells her this is normal for her age and for the number of children she has. Farah thinks her health is not too good but she has a busy life and many other things to think about. Sometimes she feels tired and often feels thirsty. It is important to Farah that she feeds her family good Asian food. This makes her happy.

*(ASK LADIES): What do you think Farah eats every day now she lives in Manchester? Why do you think her body has changed? From the picture, what size do you think she is now? Do you think this is a healthy weight? (show body images) Do you think that she should be concerned about being this size? Why? What do you think she should do about it? Why do you think she believes her health is not so good?*

Recently Farah watched a programme on the Asian TV station. The presenter discussed the importance of keeping body size low and that not to see large body size as a natural result of old age and having babies. The presenter told viewers that either changing the way she eats or increasing physical activity or both in combination could alter body size. This information makes Farah confused as to what to do next.

*(Ask ladies): What do you think she should do? How can she start to help herself and her family? What do you think she needs to know? Where can she get help? What will stop her from getting help? Why? What will motivate her to change her diet? As Farah is heavy, tell me what you understand about diabetes and being heavy. How are they connected? What can she do everyday to make a change in the way she and her family eat? Do you think this is something Farah should consider? What should she do?*

Farah's GP has warned her that she must lose weight. He says her big stomach is not good for her health. So together can you tell me how you think Farah should change her life in order to lose weight and what would make her healthier? Farah has many thoughts about

how to change her weight. Here are some things that may influence Farah. Please tell me what you think.

**Photos of (show one at a time):**

Bollywood star who is fat

Quote from the Koran

Doctor picture

Husband and children

Food cooking in fat

*Please tell me which you think are the most important influences for Farah and the least important. Why? Do you have any other ideas about what may make her healthier? Tell me which of these are more likely to help Farah to change so that she can become healthier. What are your thoughts?*

### **Version 5 (Exploring motivators)**

Farah is a 38-year old Muslim British Pakistani born in Rawlpindi and has four children all born in Longsight, Manchester. Farah's family and friends have told her that one of her sons is fat. Farah resents this as she thinks her son looks healthy. Farah is not sure if she should be concerned about his weight so she decided to visit the GP. The GP told her that Farah's son must lose weight by eating less fatty food, playing more because otherwise his weight will affect his health now and in the future. The GP discussed with Farah that her son could possibly get diabetes if her son's weight increases. Farah thinks about how this will affect her son's future and doesn't want anything to stop him from having a healthy, happy life. The GP says she must start now.

#### ***Questions:***

*How old do you think Farah's son is?*

*Describe for me a typical day for Farah's son and what he probably eats.*

*Do you think there are more overweight Pakistani children than there used to be?*

*If the GP explained that obesity in children could cause Type II diabetes, how do you think Farah would react to this?*

*As his mother, what and who would motivate Farah to improve her son's health?*

*How can she get him to start a healthy lifestyle and stick with this?*

*What are the barriers for Farah that would stop her from making changes in her son's life?*

*Where would Farah seek advice on healthy eating and making some of these changes?*

*Who can influence her son?*

*What are some of the steps that Farah can take to improve the way her son eats?*

*What do you suggest Farah can do to get her son to exercise more?*

*If your son were overweight, what would you suggest?*

*What is a dietitian?*

### **Vignette: Farah's husband**

Farah is a Muslim woman with 4 children and she was born in a village outside Rawlpindi. Farah's husband, Thahir, is 46-years old and was born in Pakistan. Thahir has high cholesterol, has had diabetes for years and has recently had a mild heart attack. His GP in Manchester has suggested he loses weight, takes his medication and increases his activity levels by walking more.

#### ***Questions:***

*What would Farah's initial thoughts be knowing that her husband has had a heart attack?*

*How do you think she reacts? What does she do next?*

*What motivates Farah's actions?*

*What would husband see as the priorities for action? How will he act?*

*Who is responsible for improving Thahir's health?*

*Who or where can he get the most reliable information?*

Thahir believes that his ill health is fate and the medication will take care of it so there is no need for change.

***Questions:***

*Until his heart attack, Thahir believed ill health is fate. Is this what most Muslim men believe? And Muslim women too? Why?*

After seeing the GP, Thahir visited a dietitian. The dietitian has advised a low fat and low sugar diet and to cut down the amount of meat he consumes. She has suggested more vegetable and lentil meals, to cut down on red meat consumed and to consume more oily fish (e.g. fresh tuna, salmon, mackerel).

***Questions:***

*What can Farah do to help improve his diet?*

*Farah commonly cooks meat curries, not too many vegetables, and she and her family enjoy sweets. Farah is concerned about how she will make these changes to the way they eat. What should she do?*

*Will Farah make the changes just for Thahir or for the whole family?*

## Appendix J Example of van Manen Analysis of Focus Group

(20 January 2006)

Time	Space	Body/Health Beliefs	Human Relations	Foodways
<p>My thoughts on the meals is more that we eat that on special occasions. It is just part of my normal routine now. [frequency] we won't have that as a usual thing every night. [frequency] like they don't eat at the right times. eat at the wrong time... [right vs wrong times] I've got such a busy lifestyle. every weekend it was a must with a big fry-up – fried chips and fried everything everything we could fry that was our Saturday or</p>	<p>I was out for a meal as well. [outside] a couple of years ago McDonal d's always had foods that contributed towards obesity. [blame] When any high food chain you go to up to a couple of years ago, I find they always had high calorie, fatty food and lots of drinks. Nothing healthy in there and a lot of people like the working</p>	<p>I saw a doctor of psychology about 10 or 12 years ago. I personally think there's not enough information with regard to healthy or unhealthy foods out there. Um, it's OK for myself as I can speak English or maybe get the odd snip of advice from the TV or through women's magazines but I think, on average, for Pakistani women, I think it's really difficult. [lack of advice for Pakistanis] Recently I've been involved in an event which is food and mood and while preparing for that I gained a lot of information about healthy and unhealthy food and which I really consciously try to incorporate in my cooking. [knowledge] I am aware of what things which can cause you harm so</p>	<p>It could be a meat dish 'cause a lot of the men in the family don't like vegetables and lentils; [Men &amp; food] and have for my children. because you try to change the norm that they are so used to for years and years and years that they've carried on through from their mums and grandmothers that I don't think that people will be ready to change and I don't think it is unhealthy as they look at their families [change] living for so many years. They won't do anything</p>	<p>We were invited at a friend's house so there was lamb curry and chicken and naan. We had rice, chicken curry, lamb curry, we had roast chicken and we had sweet rice and salad. [Pakistani food] We had meat but I've got to have a huge plate of salad with tomatoes, cucumbers and peppers and everything and plain water. the foods that I usually eat are almost the same throughout. I don't like things with additives in it or colourings or flavourings in [Like &amp; dislike] it but I try to have a very healthy diet everyday [Understanding healthy diet]. Um, meat, chicken – chicken once a week only, meat is once a week only. I'll have lentils.</p>



Time	Space	Body/Health Beliefs	Human Relations	Foodways
<p>Sunday meal.</p> <p>[frequency]</p> <p>I suppose it's just getting more time. [not enough time]</p> <p>if it's something that as a family, touch wood, that you've all been healthy for generations and generations and <i>you've been eating the same food all these years</i> [tradition].</p> <p>So this is what happens and you tell them to put less oil or don't drink full-fat milk or things like that – this is what <i>our adults are doing for so long and they say why are you stopping us</i> [consistency]</p>	<p>there just go and get a takeaway and something and it's all contributes to obesity. [blame]</p> <p>I don't think in the United Kingdom there's a major obesity problem.</p> <p>unless I've got my concept of obesity wrong, I think we're fine in this country. [obesity in UK]</p> <p>You know Morrisons when you buy shopping and you've got 'buy</p>	<p>at least knowing them you do try a little. [knowledge]</p> <p>In my view, I don't really think there was a problem with regards to obesity.</p> <p>[Understanding of obesity]</p> <p>I don't think there's an obesity problem especially when you look at – I always thought well – unless it's my perception of what obesity is because the standard average woman is 14. I don't know an average woman 14 (laughs)! [Understanding of obesity]</p> <p>I think, yeah, we have an unhealthy lifestyle. [Unhealthy lifestyle]</p> <p>I think the younger generation is becoming very conscious about their weight.</p> <p>Well, mine is already healthy-I like to believe mine is already healthy. [Diet: healthy]</p> <p>I think for me what</p>	<p>different and I think a lot more needs to be done in those languages that the individuals speak or sort of role plays on information that can give them a different message to raise the awareness that it does affect, I don't know, your blood pressure, your heart, your diabetes and <i>I think a lot more needs to be done.</i></p> <p>whatever form of advise it is <i>always targeted at western food.</i> [targeting advise]</p> <p>I think for me I know as the mother and ... I might change for myself but trying to change the way the family thinks and the</p>	<p>I'll have vegetables, um, but when we do have our meal its got to be with a huge plate of salad. Children are also encouraged to have a glass of milk if they want to. [Pakistani food]</p> <p>2 different types of curries, then there's sweet rice. [Pakistani food]</p> <p>Its more sort of one curry, and we do concentrate on. we tend to focus on meat whether it's lamb or chicken and we eat <i>a lot</i> of meat. [Meat]</p> <p>Our meal consists mainly of 2 dishes; one which either is of meat or a chicken dish then there is a vegetable or lentil with it. There is always a choice is somebody feels like eating meat or chicken they can have that one. Or if someone feels like having a lighter dinner, they can have vegetables or</p>

Time	Space	Body/Health Beliefs	Human Relations	Foodways
<p>/</p> <p>it's a second nature to me now. It is something I have always done and to me if I don't do it, it is like something is missing. [second nature]</p> <p>I think the big issue is time, <i>rushing your meals, not sitting down as a family to have your meals and you just eat the quickest thing you.</i> [not enough time]</p> <p>The quickest thing for me is whatever is quick!</p> <p>because now I don't have enough time, I'm very naughty, sometimes I send my boy to the chip shop because I'm so tired that I haven't the</p>	<p>one get one free' and you've got donuts and muffins and chocolate s. [foodstore]</p> <p>Besides everything you do at home, do everything on the outside, you're working as well. [at home vs. outside]</p> <p>Look at us sitting here are either working, studying, you know, and then going home and doing everything. So you know there's a lot on.</p>	<p>prevents me from really focusing on a healthy diet would be <i>the taste</i>.</p> <p>that's another thing that stops me cooking healthy and looking for the healthy option 'cause I'll just do what – the easiest thing I do love on a regular basis.</p> <p>I think it's the same with me, <i>my taste buds they are preventing me from trying healthy food</i>. [Taste buds]</p> <p>but then you think you're only young once so why not enjoy the food (laughs) [Enjoyment]</p> <p>now consciously I put less oil in my food because I know it's not good for health. [Adapting food]</p> <p>now it would be like OK some of you will make sandwiches and stuff like that and it's no big deal that I have to fry so maybe now and again – I just want to be a bit</p>	<p>children, I think <i>I've got a battle there</i> [Change]</p> <p>. I think they're not going to adapt to if I wanted them to have the healthy option, I just think it would be a struggle. They wouldn't eat.</p> <p><i>I feel so much pressure on myself</i> because I know that if I were to change my eating habits that they would have to change themselves. [change]</p> <p>Unless you start from scratch, isn't it, with the children [Children &amp; food]</p> <p>And you do feel guilty about it that you are giving something to your children which is bad</p>	<p>lentils and there is always a dish of salad with cucumbers and tomatoes [Pakistani food:diversity]</p> <p>I'm very conscious of the way, of the type of foods that I eat. [Conscious of food]</p> <p>they think it's OK having pure butter or pure items in their food stuffs, they think it's normal. [Preference: butter]</p> <p>you're used to eating the <i>same food, using the same ingredients</i>, it is a very very hard thing like a change to another oil [Can't change] which is supposed to be more healthier but the food wasn't tasting as good so we went back to the same oil which I used to use [Preference: oil]</p> <p>because before that I was using corn oil and then I changed it into vegetable oil but</p>

Time	Space	Body/Health Beliefs	Human Relations	Foodways
<p>energy to cook for 6/7 people. I just haven't got it, the time thing [not enough time] where it wasn't as bad probably 50 years ago where you were just having the children. [changes] Now it is completely changed. [changes] I wouldn't eat that every single day of the year. maybe once or twice a year. [frequency]</p> <p>This is about 15 years ago. with regards to salad, that is way back into my childhood. [in the past]</p> <p><b>Codes:</b></p> <ul style="list-style-type: none"> <li>• frequency</li> <li>• right vs. wrong times</li> <li>• not enough</li> </ul>	<p>[work in their space]</p> <p>In Pakistan, there's usually a lot of organic food. [food in Pakistan] Probably just in my house..its like in Ramadan we eat that once a year. [inside] It is not something I would say I picked up from outside [outside]</p> <p><b>Codes:</b></p> <ul style="list-style-type: none"> <li>• Outside</li> <li>• Blame</li> <li>• Obesity in UK</li> <li>• Foodstore</li> <li>• Inside vs.</li> </ul>	<p>healthier. [Adapting food]</p> <p>I suppose if healthy food is cheaper as well, I think that's another big thing. Anything that you see when you go shopping is really expensive. [Cost] The healthy option is normally more expensive. [Cost: healthy food]</p> <p>'I might as well get that, you'll get full up'. Anything that was healthy is never on offer (laughs) – it's always expensive, actually that's another reason why [Cost: healthy food]</p> <p>you know, touch wood, that no one becomes ill or had blood pressure or high blood pressure, low blood pressure whatever, diabetes or anything like that. [Health] You don't think, it's not caused them any harm so why's it gonna cause me any harm.</p>	<p>[Children &amp; food]</p> <p>Let's puts the blame on them. [Blame]</p> <p>Let's start blaming them. The shopkeepers and everything. [Blame]</p> <p>you've got large families and low incomes and difficult for people to make ends meet and yes, the easier option to buy one, get one free, that doesn't seem to happen... families' healthier way of eating.</p> <p><i>family does influence the choices I make</i> [Influence of family].</p> <p>if it's just me and my children then obviously throughout their lives I've always tried to</p>	<p>the food wasn't tasting that good so I again bought the corn oil when I went for my shopping but then again I am aware of, not fully. [Aware] I know that salt isn't that good for you so you consciously try to put a little salt in your food compared to what I used to. because I like my curry, <i>we all like our curries and we can't change them</i> [Can't change] but if it was changing to healthy food so we could cook something else for instance then that might we might use that recipe and cook accordingly. [Recipes]</p> <p>High food fat calorie diets do contribute. people have unhealthy diets. there is a problem-then yeah-fish and chips and greasy, fried stuff is probably the main cause. [Frying]</p>

Time	Space	Body/Health Beliefs	Human Relations	Foodways
time •tradition •consistency (part of tradition) •second nature •changes •in the past	outside  •Work in their space  •Food in Pakistan  •Inside	It makes strong bones and it gives you strength and stamina. You know, women of today – like my grandmother used to say ‘ <i>girls of today, they’ve got no energy you know because you don’t eat the right foods</i> ’ [Younger generation] (laughs)! It’s not just that but all of the healthy option, the calories and it’s too extra work to be looking at all them ingredients – it’s got no animal fats in it, it’s vegetarian or whatever and no gelatin in it that is the sort of focus as well for me. Other than that, <i>healthy I don’t think of</i> . [Healthy option: too much work] I’ve got two daughters who are very very skinny so we are counting the calories; then there’s me and my son and one other daughter and we tend to put on weight; [Calories] they’ve got to be	have a healthy meal. [mother/children & food]  we do get together, it’s like, you know, it’s the pilau rice, kebabs and what-have-you, all unhealthy but very tasty, have like a feast sort of thing. It does play a part of family. [Feast & family]  blood pressure and stuff like that but <i>there’s nothing really to say that when I’m not doing anything with regards to a particular curry that’s gonna affect you</i>  My mother, she’s so much more energetic than I am. She can walk all day – she doesn’t get tired where I get	my children won’t eat without a salad and fresh fruit. They eat the greens because they’re healthy. Yes, it’s healthy. [Understanding: healthy diet]  it is similar to what Nadia said that you get lo-fat margarine and lo-fat this and low sugar this and I honestly say I mean I tried the lo-fat cheesecake and stuff and I think “I’m not eating this again” - I just bin it because the taste is awful. [Like/dislike]  I’ve got my cooking oil and me butter and whatever cause I know I have...and I’m cooking, I’ve not learned or seen any new cooking methods to adapt ‘cause I’ve not got the time to and I know we keep saying don’t fry and grill instead of frying bake the stuff but it’s quicker and tastier. [Cooking]

Time	Space	Body/Health Beliefs	Human Relations	Foodways
		<p>healthier as well at the same time which is quite difficult and I've got to find lo calorie, healthy foods for myself so I think of the hassle [Healthy option:too much work]</p> <p>Because I have always been told eat as much as you want but do exercise, go for walks and that's it. <i>Don't upset yourself by counting calories,</i> by saying don't eat this, just eat whatever you want and do exercise and that's it. [Calories &amp; exercise]</p> <p>When I go to my mum and dad's house, my dad has at every meal he has his salad and he'll have his fresh fruit and he walks and stuff and <i>it's like we've got the good habits in front of us but I think it's time.</i>[Good habits]</p> <p>I don't know, you just cook yourself for that. <i>You're not thinking about</i></p>	<p>tired. [Mother vs. daughter]</p> <p>I think the role of women has changed – let's <i>blame</i> that because it has. [Blame]</p> <p>the role of the woman is not just the mother who's raising the children and cooking and staying at home and cleaning. I think the woman now is a super woman.</p> <p>you do so much with your children, I just think expectations have risen completely for a woman now. [Role or woman]</p> <p>men were the bread winners, going out doing the work and providing for the family and when we were just, well, having children and</p>	<p>methods]</p> <p>I have tried semi-skimmed milk but it doesn't taste good. I tried lo-fat cheeses and things like, [Like/dislike] suppose I start bringing the brown bread and I start eating the brown bread, that will it encourage the children to eat brown bread. [Role model: children] But then again it is a hard thing... (laughs).</p> <p>you do make small efforts but it's not any drastic changes that one day it's all lo-fat things in the house.</p> <p>now in my case I have margarine and butter and butter just for my children because I don't want to keep margarine because I think butter is good for them They do need to take butter on their bread rather than the margarine but it is margarine for me and my husband [Butter</p>

Time	Space	Body/Health Beliefs	Human Relations	Foodways
		<p><i>healthy.</i>[<b>Healthy option</b>]</p> <p>No, there isn't (community awareness about 5-a-day).[<b>Advise for Pakistanis</b>]</p> <p>the only reason I think I'm aware of it is because of work and there has been a big promotion about the '5-a-day' [<b>Knowledge</b>] stuff and then drinking the water and how particular food affects your mood. That's the big hype now in the news but I think generally speaking in the wide Asian community, <i>when I think about my mum and my mum's friends and stuff, they wouldn't know how to get that information.</i> I don't even think it's in Asian newspapers or even like the Asian radio which a lot of the Asian people in Manchester listen to because there's nothing on there.[<b>Lack of info for Pak com</b>]</p> <p>I know as a young</p>	<p>looking after the children, weren' and looking after the house, weren't they? [<b>Role of woman</b>]</p> <p>Just to ourselves, aren't we? I mean I don't bother with anybody (experts). [<b>Source of advise</b>]</p> <p>I mean you hear about people going on the Internet and stuff like that but no I don't [<b>Source of advise</b>]</p> <p>our mums and grandmas were right because it always made you have nuts and my mum always said to me, 'Make sure you have before you go to sleep you have a couple of nuts'...'All right, mum'. [<b>Source of advise</b>]</p> <p>My dad had to</p>	<p><b>vs. marg]</b></p> <p><i>The choices for healthy food are not there.</i>[<b>Healthy food: no choice</b>]</p> <p>Some say pilau rice and all this sort of thing are unhealthy because we do need carbohydrates, we do need proteins...if you put <i>less oil in it, it will be OK to eat it.</i> [<b>Amount: oil</b>]</p> <p>And smaller portions! [<b>Portion size</b>]</p> <p>20 or 30 calories per one spoon, then besides all of that there's 1000 calories in ...I think its about 20 calories per one spoon of pilau rice. [<b>Calories</b>]</p> <p>Like you were mentioning before there aren't any facts available on the curries and things like that .... So we are not aware of it. [<b>Curries</b>]</p> <p><i>we've always been told proteins in your diet,</i></p> <p><i>She says this is</i></p>



Time	Space	Body/Health Beliefs	Human Relations	Foodways
		<p>kid used to get that a lot and almonds are used to help you with brain food is good for you and now [Info from elders] actually I read something in that '5-a-day' how nuts can, yeah, and Omega 3 and that actually puts a trigger in my mind thinking, that you know what, me mum was right. we hear all the time that garlic is good for you, like you were just saying, and ginger is good for this thing.</p> <p>It has got balance, <i>if you balance it out its probably got more nutritional value to it as opposed to them contributing towards obesity.</i> [Balance of diet]</p> <p>I don't really know (when asked where she gets her health info). I think it's just my own taste buds is what I like if what I ate and what I enjoyed it that's what I ate. [Tastebuds]</p>	<p>have a big plate of salad – we were forced at that time to eat it but even now, I'm grown up and my children are grown up as well, it is just second nature. [Salad=second nature]</p> <p>Some mothers say 'can you please give honey to my baby?' [Mother/children &amp; food]</p> <p>we have sub-cultures within our main culture so for instance Yasmine could have a slightly different culture to mine. [Subcultures]</p> <p>It's just that there are sub-cultures within our main culture. [Subcultures]</p> <p>When my children were born I don't</p>	<p><i>because I drank milk all my life – I have eaten pure ghee so that's why I am like this. You should eat more, this is what she says.</i> [Elders]</p> <p>have a full breakfast in the morning and like yeah eat breakfast then.</p> <p>Faith-wise obviously you have a choice as to regards what foods you have because you have to eat halal that the thing that would [Faith] affect that. I always check the biscuits and ....see that is something I'm really strong with <i>so it wouldn't bother me with the healthy option but it would bother me if it had animal fats in or gelatin in and I would really I suppose it's changing my thinking.</i> [Changing thinking]</p> <p>I've never counted my calories when I'm eating my</p>

Time	Space	Body/Health Beliefs	Human Relations	Foodways
		<p>you do tend to read a lot in the magazines that too much meat isn't good for you, and too much chicken isn't good for you (same participant contradicting herself).[<b>Balance of diet:meat</b>]</p> <p>How did you know about one spoon of pilau? [<b>Knowledge</b>] Calorie counting book... and I could not put on weight and I was really obsessed with my weight. Why wasn't I putting on weight? So I got myself a calorie counting book and every morsel that I ate I had to count how many calories it had in it. it just developed into healthy eating.[<b>Diet:health y</b>] although I do the reading I also personally feel that there's not enough information on Asian cooking that would enable us to follow that. So I don't follow it, and I love looking through recipe</p>	<p>let anybody give them honey! There was a big issue....'I'm going to give them honey' [<b>Subculture</b>]</p> <p>No, no...you wouldn't, would you? [<i>saying no to an elder</i>] [<b>Influence of family</b>]</p> <p><b>Codes:</b></p> <ul style="list-style-type: none"> <li>•Men &amp; food (Dynamics within family)</li> <li>•Change (Dynamics within family)</li> <li>•Targeting advise</li> <li>•Children &amp; food (Dynamics within family)</li> <li>•Blame</li> <li>•Influence of family</li> <li>•Mother/children &amp; food</li> <li>•Feast &amp; family</li> </ul>	<p>curries and my chappatis.[<b>Calories</b>]</p> <p>we've got to count our calories to make sure that we are not taking a lot of calories [Calories] in and plus also I've got to keep the cost in mind [Cost]....each time I go for shopping it is I have to buy high calorie foods for them;</p> <p><i>Do you enjoy food as well as you're so busy counting calories?</i>[<b>Calories</b>]</p> <p>, I mean my dad eats healthy and he's got his fruit and he's got his drinks and everything but it's not something I'm doing at home. while I was home I paid more attention to my meals <i>because I was responsible for putting food on the table</i> and what I cooked is what they ate. [<b>Responsibility</b>] When we were small and we used</p>



Time	Space	Body/Health Beliefs	Human Relations	Foodways
		<p>magazines but that is about all I will do. I won't go any further [Lack of info for Paks]</p> <p>There's not particular traditions with regards to, you know when you're ill, and what you're supposed to eat and when women have given birth there's a food that the mums make – penjimi – it semolina and almonds, pistachios and all the, I don't know, the rich foods. You eat so much rich food after you give birth that you never lose the weight.[Stage of life]</p> <p>It will all help cleanse your body.[Knowledge]</p> <p>And it's supposed to give you all that tonic and energy and cleanse all the, obviously, the insides and all the bad blood and scarring or whatever to help heal everything up. That would was a major tradition that a lot of Asian</p>	<ul style="list-style-type: none"> <li>•Mother vs. daughter</li> <li>•Role of woman</li> <li>•Expert advise (source)</li> <li>•Source of advise</li> <li>•Salad=2<sup>nd</sup> nature</li> <li>•Subcultures</li> </ul>	<p>to get back from school because there was a lot of fresh food cooked and then the fresh chappatis made for us and it was laid down on the table and everybody sits down. it was freshly cooked, it has got vegetables and fresh meat and everything and fresh chappatis. [Fresh food]</p> <p>You're eating small amounts, you're eating quality food, good quality food whereas here it is processed (in Pakistan). [Pakistan vs. UK]</p> <p>I just, you know, OK, I might increase the fruit that particular week or that particular month but then go back to me own normal routine but I don't go for any advise or [No professional advise]</p> <p>Even though maybe they are not aware that they have to eat 5</p>

Time	Space	Body/Health Beliefs	Human Relations	Foodways
		<p>families still do today ‘cause we do it and I like eating it anyway so if there’s anyone giving birth in our house.</p> <p><i>the white speckled skin...</i> [Knowledge]</p> <p>You’re not supposed to eat, drink milk or any for a skin condition [Tradition]</p> <p>Where you’ve got the fading, the white patches of skin and it causes that...I don’t know if that’s true but we never do...I guarantee most Asians would never eat fish and milk (Laughs). [Tradition]</p> <p>Even if you are on your period you’re not supposed to drink very cold water [Knowledge]</p> <p>Honey’s a good one in ... a lot of Asian families or Muslim families because of their faith and culture that it’s got a lot of <i>healing powers</i> if you’ve got a cold or flu or sore</p>		<p>fruit and vegetable but they are always know that...drinking water, they do need to drink water, they do have to eat fruits and vegetables. [Healthy messages]</p> <p>And nuts....I know because we have a lot of almonds; where the mums used a glass of milk and nuts. We used to grind the almonds and put into the milk. [Pakistani food]</p> <p>They always said to us to have a glass of milk before we go to sleep. In our cooking there is always a ginger and garlic. Ginger and garlic is so good for health and all the spices they are ... <i>so our food do have good things in it.</i> [Pakistani food]</p> <p>but compared the level of fatty content in it is quite high. It’s also got its nutritional value as well.</p>

Time	Space	Body/Health Beliefs	Human Relations	Foodways
		<p>throat, its something that is supposed to be really good for you more than if someone said go and get some cough medicine. It's helps cure all sorts of [Tradition]</p> <p>Another thing when a child is born the first thing the child to taste is honey, which is not a good thing because ... That is very in tradition because its not a spoon of honey, it's a dab you put on the baby's tongue but um, the tradition [Tradition]</p> <p>in the days of the founder of Islam, the prophet Mohammed gives honey, if people like that had babies they would come to him and he'd chew a date and he put a bit of that date in the baby's mouth so that tradition is always that an elder in the family would normally take that on but each community would treat it slightly</p>		<p>[Nutritional value] you do have time for 100 different types of spices all blended together and add flavour but its very very good for you. [Spices]</p> <p>But then we've got all the bad stuff, your fried samosas, your fried kebabs and your sweets, your hova, made with pure ghee, all the sugary stuff, you've got your puris that are fried and chappitis which are fried in oil. chakkas and your samosas, then you have a meal as well. (Laughs). [Pakistani food: fried]</p> <p>that is part of a special meal... <i>every magazine you open is all to do with western food.</i> Don't fry the fish, just poach it or bake it [Western food], you know, we're all used to eating spicy food and nothing is there to cater for that need [Pakistani food vs.</p>

Time	Space	Body/Health Beliefs	Human Relations	Foodways
		<p>different but in Pakistanis it is always honey, isn't it? [Tradition]</p> <p>Just a little dab....the tradition in our family is they've all had honey. Every grandchild in the family has had that but that is the thing that honey is the sure of so many problems and stuff.</p> <p>And there's black onion seed (gavindi), that is supposed to have so many healing properties in it and I know quite a lot of people will take even just a couple of dry onion seeds and have them with a bit of water and digestion. Fennel seeds will help you ....and that's a fact. [Tradition]</p> <p>When the older person in the house and they give you a bit of sugar and its supposed to help your indigestion [Pakistani understanding]</p> <p>It does seem to work!! (laughs)</p>		<p>western food]</p> <p>There was fresh chicken food, aren't there? And you put the whole chicken bones and you concentrate, healthy, yes, and that healthy sort of nut stuff that you have to eat. Mi mums and all the older ladies and you do because all my fish, my mum makes it for them. their mums would send it from back home as well especially cooked in pure butter or ghee. [Pakistani food]</p> <p>I remember when we were small we were told that we shouldn't be eating fish and milk together because it gives.</p> <p>....the white speckled skin...it was yogurt and milk with the fish [Food &amp; health]</p> <p>I gave milk and tuna sandwiches to my son and I was thinking, oh no. [Food &amp; health]</p>

Time	Space	Body/Health Beliefs	Human Relations	Foodways
		<p>It is so good for you. [Pakistani understanding]</p> <p>He started to take one spoon at night because its supposed to reduce cholesterol and its good for digestion [Pakistani understanding]</p> <p>Codes:</p> <ul style="list-style-type: none"> <li>•Lack of advise for Pakistanis</li> <li>•Knowledge</li> <li>•Understanding of obesity</li> <li>•Unhealthy lifestyles</li> <li>•Younger generation</li> <li>•Diet:Healthy</li> <li>•Taste buds</li> <li>•Enjoyment of food</li> <li>•Adapting food</li> <li>•Cost:healthy food</li> <li>•Health</li> <li>•Healthy option:too much work</li> <li>•Calories</li> </ul>		<p>Hope it's not that fish (laughs). Um, the bit about women and babies because remember the woman will not let you have anything cold so the concept of ice cold water when you're in hospital after the baby...my mum would come and throw that water away. [Traditional belief] 'Don't you dare drink that water – it's the worst thing for ya!' and they would make you have this hot tea, spicy. [Traditional belief]</p> <p>Olive oil is something I used to use all the time in my cooking. Olive oil gives you lots of good nutritional value as well as, I believe, it reduces cholesterol as well. I read that somewhere. [Understanding:healthy diet]</p> <p>It has a very strong taste .... So you use olive oil? That is what somebody told me</p>

Time	Space	Body/Health Beliefs	Human Relations	Foodways
		<ul style="list-style-type: none"> <li>•Thinking about healthy option</li> <li>•Calories &amp; exercise</li> <li>•Good habits</li> <li>•Info from elders</li> <li>•Balance of diet</li> <li>•Balance of diet:meat</li> <li>•Stage of life</li> <li>•Tradition</li> <li>•Pakistani understanding</li> </ul>		<p>so the rapeseed oil is a vegetable oil?  [Understanding: healthy diet]</p> <p>tea in our diet. It's like compulsory. If you're not Asian, you don't have a cup of tea. The Asian type that is cooked, boiled and boiled  [Traditional belief]</p> <p>Codes:</p> <ul style="list-style-type: none"> <li>•Pakistani food</li> <li>•Pakistani food: fried</li> <li>•Like/dislike</li> <li>•Understanding: healthy diet</li> <li>•Meat</li> <li>•Pakistani food: diversity</li> <li>•Conscious of food</li> <li>•Preference: butter</li> <li>•Preference: oil</li> <li>•Aware</li> <li>•Can't change</li> <li>•Recipes</li> <li>•Frying</li> </ul>

<b>Time</b>	<b>Space</b>	<b>Body/Health Beliefs</b>	<b>Human Relations</b>	<b>Foodways</b>
				<ul style="list-style-type: none"> <li>•Cooking methods</li> <li>•Role model: children</li> <li>•Butter vs. marg</li> <li>•Healthy food; no choice</li> <li>•Amount oil</li> <li>•Portion size</li> <li>•Calories</li> <li>•Curries</li> <li>•Elders</li> <li>•Faith</li> <li>•Changing thinking</li> <li>•Cost</li> <li>•Responsibility</li> <li>•Fresh food</li> <li>•Pakistani vs. UK</li> <li>•No professional advise</li> <li>•Healthy messages</li> <li>•Nutritional value</li> <li>•Spices</li> <li>•Western food</li> <li>•Food &amp; health</li> <li>•Traditional belief</li> </ul>

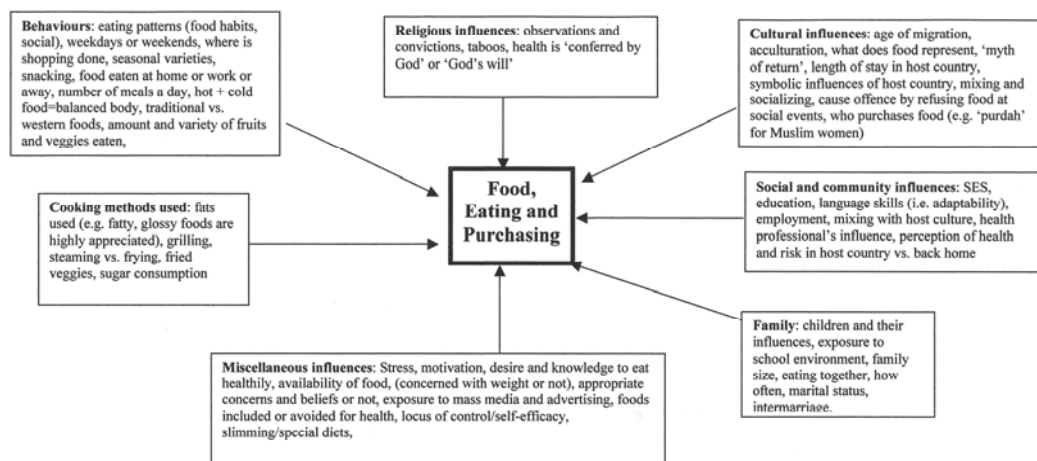
<b>Time</b>	<b>Space</b>	<b>Body/Health Beliefs</b>	<b>Human Relations</b>	<b>Foodways</b>

Notes: On participant said women want to please their men! And women do let themselves go (i.e. in appearance).



## Appendix K Influences on dietary patterns in Pakistani women

**Figure 1**  
**Influences on nutrition and dietary patterns in Pakistani women**



**Considerations for Focus Group vignettes:** 1. Concepts of healthy eating; 2. Barriers and motivators; 3. Nutrition education channels (as described by James 2004). Family barriers, waste, cost of food, rejection of food; Who they trust to give them reliable health info? (e.g. radio, TV, magazines, internet, friends, doctor, place of worship, from children, written literature, from workplace?) Where do they shop? Eat out or mostly at home? Catered food? Do they snack? What cooking techniques (i.e. lots of oils and fats?), preference of food (traditional mostly and sometimes western?), causes and ways to prevent heart disease and diabetes, genetic issues; Would you adapt your cooking methods (e.g. using less fat)? Willingness to modify?

A.F. Ludwig  
(per Basma add quotes from participants)

21 April 2005

## Appendix L Recommendations for healthy eating tips for Pakistanis

Healthy eating message	Summary	Non-relevant and relevant food messages
<b>Language</b>	For those with English difficulties (particularly Bangladeshis) healthy eating messages might not be understood or interpreted easily (e.g. confusing or conflicting information via the media). It should not be assumed that eating healthily means anything to a SA. Also if they believe their traditional food is healthy they may reject advice.	SA tend to add oil unsparingly to curries and many foods are deep-fat fried (e.g. vegetables, samosas, pakoras, etc.). <b>Relevant messages:</b> Suggest measuring oil and gradually use less. Use less oil (especially highly saturated fats), or ghee or butter in cooking. Rather than stir in oil, skim off when possible (may or may not be possible as curry is usually made fresh daily).
<b>Ad hoc advice</b>	Healthy eating advice may be confusing for SA especially when provided on a periodic basis. The SA may lack the overall understanding of why the message is important to their health.  Recipients of this kind of information will not feel encouraged or motivated to incorporate the advice.	Eat less rice or fewer chapatis. Rice or chapattis may be the staple in their diet and should not be excluded just smaller portions would be healthier (or substitute brown rice for white rice). There may not be an understanding of portion sizes or what constitutes a portion. <b>Relevant messages:</b> Eat more vegetables or beans and pulses and less rice. (Try one or two nights/wk with no meat). Try eating fish more often. Canned fruit or frozen (in natural juice not syrup).
<b>Over prescriptive advice</b>	A message may seem simple to the health professional such as eat more fruit and vegetables or use less salt but the SA may not understand why these messages will improve the quality of their diet.	SA tend to not consume enough fruit and vegetables and add salt during cooking and at the table. <b>Relevant messages:</b> Suggest alternative ways to using fruit, for example, that is in season or frozen (therefore cheaper) in salads or smoothies. Fruit should be included at least twice a day or more.

Healthy eating message	Summary	Non-relevant and relevant food messages
		<p>Explain what the recommended amount of salt is per day and suggest measuring salt during cooking or at the table, not both. Use other ways to flavour the dish for example herbs, spices or garlic, often used in curries.</p>
<p><b>Culturally appropriate and relevant information</b></p>	<p>Encouraging SA to eat food, which they would not normally consume or what they are unfamiliar with will not be heeded. They need to make sense of the messages given to them. Certain faiths restrict consumption of some foods, e.g. Muslim restriction of eating pork, shellfish and eels (i.e. only fish with fins and scales are permitted).<sup>i</sup></p>	<p>Eat more low-fat dairy products.  This message may not be relevant to SA who believe that milk is for children not adults and that halal restrictions will limit dairy and snack foods. Milk may be perceived as a luxury food, which makes you fat.  <b>Relevant message:</b> Try skimmed or semi-skinned milk versus full fat milk especially if drinking a lot of tea. Drink fruit juices (not 'drinks') and do not add sugar.  Suggested message: Drink plenty of milk as it makes you healthy and strong (enhances what they already believe).  As many SA eat salads already, suggest creative ways to enhance salads by adding different vegetables, seeds, nuts or fruit.  Cut back on sugar-loaded drinking soft drinks!  Non-relevant message: (Cut back on alcohol). Muslims don't drink alcohol, usually they drink soft drinks and juice, encourage water consumption. Try drinking a glass of water before each meal. Limit intake of healthy 'English' food (e.g. chips).</p>
<p><b>Underlying assumptions</b></p>	<p>A healthy eating message will be effective if the recipient's common-sense understanding is considered and will reflect how the information is interpreted.</p>	<p>When discussing portion sizes or kilocalories of foods, it should not be assumed that these concepts are understood.</p> <p>Models of foods would be practical or suggesting handfuls or fistfuls as a portion size.</p>

Healthy eating message	Summary	Non-relevant and relevant food messages
<b>Confidence and skills to change</b>	SA need support and achievable advice before they transition to a healthier diet. They need to know that healthy does not mean unappetising or expensive, giving up their favourite and traditional way of eating.	Useful information on using different cooking methods, adapting recipes and demonstrating how these are done would help. Make one change at a time so the family can get used to healthier eating. Try tasting sessions to prove that food can still be tasty.

**Note:** Extracted and adapted for the Bangladeshi community from Zannath, K., and Williams, K. (2005, p.4) and Zannath, K. and Edholm, F. (2004), and Fieldhouse, P. (1996). *Food and Nutrition; Customs and Culture* (2<sup>nd</sup> Edition). Cheltenham, UK: Nelson Thornes Ltd.

### Appendix M Motivators and Barriers

<b>Motivators</b>	<b>Barriers</b>	<b>Internal or external factors</b>	<b>Healthy and unhealthy choices leading to changes</b>	<b>Examples</b>
Children	Children	External	Healthy and unhealthy	Educating mothers about healthy eating messages (e.g. 5 a day or using less salt);  Children influencing mothers to eat less unhealthy takeaways or junk food (giving examples)
Husbands	Husbands	External	Healthy and unhealthy	Maintaining Pakistani cooking practices, using healthy ingredients;  Husbands refusing to allow curry to be made with healthier oil or less oil
Societal and cultural factors	Societal and cultural factors (including language spoken)	External	Healthy and unhealthy	Cooking from scratch daily;  Large food portions at celebrations (pressure to eat)
Traditional beliefs	Traditional beliefs	Internal	Healthy and unhealthy	Eating traditional food for dinner with the family;  Fate, destiny and believing that nothing can be done about body or that something can be done
Getting older	Getting older	Internal	Healthy and unhealthy	Getting older can being a motivator or barrier to doing anything about health and body size

<b>Motivators</b>	<b>Barriers</b>	<b>Internal or external factors</b>	<b>Healthy and unhealthy choices leading to changes</b>	<b>Examples</b>
Health promotion from doctors and other health professionals		External	Healthy	Being informed about health risks and healthy behaviours;  Knowing where to find appropriate information;  Health professional fails to give a 1G woman health eating advise
Perceived support		External	Healthy	Support from family, community and health professionals

As represented by internal or external factors, healthy and unhealthy choices and examples.

## Social and cultural construction of obesity among Pakistani Muslim women in North West England

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### Abstract

**Objective:** The present qualitative study explored health perceptions, diet and the social construction of obesity and how this relates to the initiation and maintenance of a healthier diet in UK Pakistani women.

**Design:** Pakistani women in Greater Manchester participated in focus group and one-to-one discussions. Semi-structured interviews employing fictional vignettes and body shape images were used to explore the participants' beliefs and practices regarding diet, overweight/obesity and the risk of type 2 diabetes. Transcripts were analysed using phenomenological and sociological approaches.

**Setting:** Interviews took place either in local community and Pakistani resource centres or in private homes.

**Subjects:** First- and second-generation women who were both active in the community and housebound. The women spoke English and/or Urdu.

**Results:** The fifty-five participants lacked the motivation to address weight gain and were unsure how to do so. There was a limited awareness of the link between weight gain and type 2 diabetes. Other barriers included the influence of Islam, culture and familial expectations on home cooking, perceptions that weight gain is inevitable (owing to ageing, childbirth or divine predestination) and the prioritisation of family concerns over individual lifestyle changes. As the findings of the present research did not correspond to existing educational and behaviour change models, a new Health Action Transition conceptual model is proposed.

**Conclusions:** Health education programmes that aim to address obesity and its associated risks in the South Asian community must take into account the complex beliefs and practices and the multiple dimensions of religion, ethnic and social identity within this population. The present study provides further insight into these factors and proposes a novel model for use in designing and implementing education interventions for British Pakistani women.

**Keywords:**  
Diet  
Educational models  
Pakistani  
Obesity

Actions to address the rising levels of obesity and type 2 diabetes (T2D), which predispose people to CVD, are a health-care priority<sup>(1–3)</sup>. There is a particular need for culturally specific educational interventions targeted at black and minority ethnic groups, including South Asian populations<sup>(4–6)</sup>. In 2001, approximately two million ethnic South Asians were living in England and Wales<sup>(7)</sup>. Approximately 215 000 South Asians were living in North West England<sup>(7)</sup> and this population is growing faster than those of other minorities<sup>(8)</sup>.

South Asian men and women have a 2-fold and 1.5-fold higher risk of T2D, respectively, than the general population<sup>(9)</sup>. Central obesity is more common in South Asians than in Caucasians<sup>(4,9,10)</sup> and is particularly prevalent in Pakistani women<sup>(10,11)</sup>. Overall, South Asians are approximately 50% more likely to die from CHD than the general

population<sup>(4)</sup>. In the South Asian context, women's health is devalued and neglected<sup>(12)</sup>.

Dietary differences are likely to contribute to these health inequalities<sup>(4,13,14)</sup>. Although dietary profiles of South Asians vary, the consumption of saturated fats is typically high and the consumption of fruit, vegetables and dietary fibre is sometimes low<sup>(4,15,16)</sup>. Socio-cultural factors strongly influence dietary habits among South Asians. Important factors include Islamic guidance, cultural beliefs, family roles and expectations, language barriers, health knowledge and the level of acculturation<sup>(17–23)</sup>. As South Asian women have a principal role in food preparation, measures to improve their understanding of food and health are particularly important if community-wide changes and effects are to be achieved.

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Culturally specific diet and health education programmes have been implemented locally<sup>(4,6,24–26)</sup>. However, levels of cultural competency among health professionals working with South Asians require further improvement. The present qualitative study, conducted by a second-generation Pakistani (and a second-generation female translator) and two non-Pakistani researchers, aimed to assist this process by:

1. exploring health perceptions and diet that may contribute to the increased incidence of diet-related diseases and to cultural body image perceptions of obesity;
2. exploring the understanding of perceived health risks and the social construction of obesity;
3. elucidating the relevant barriers and motivations for dietary and lifestyle choices; and
4. developing a framework to better understand the factors underlying the women's health behaviours and how this relates to the initiation and maintenance of a healthier diet.

## Methods

### Participants

The study recruited first- and second-generation Pakistani women in Greater Manchester, England. Purposive recruitment and enquiries at community centres<sup>(20)</sup> were used, or 'snowballing' (via personal contacts) and word of mouth. Efforts were made to include both English- and non-English speaking women, and (voluntary or involuntary) hard-to-reach women (e.g. defined as unable to drive or not permitted to leave home<sup>(25)</sup>). Informed verbal consent was gained from all participants and the project received ethical approval from the University of Chester Research Ethics Committee.

### Focus groups and individual interviews

Initially the study used both ethnographic and phenomenological approaches. Ethnography uses unobtrusive cross-cultural observations and informal discussions (e.g. with shopkeepers in South Asian food shops) as a means of interpreting social reality<sup>(27)</sup>. Phenomenology aims to uncover meanings, without explanation, of a reality that is socially constructed through lived experiences. This allows

for the description of realities as perceived by individuals within their community and the host community<sup>(28)</sup>.

The researchers gathered data from participants during small focus groups, lasting approximately 1 to 2 h, or one-to-one interviews, lasting from 15 to 60 min. They were conducted in community centres or participants' homes, in English and Urdu, and were led by either a Caucasian or a Pakistani researcher, experienced in qualitative methods, along with a trained female Pakistani translator. A pilot focus group session was conducted among seven Bangladeshi Muslim women.

All sessions involved using fictional vignettes, as previously used in health studies among South Asians<sup>(17)</sup>, interspersed with open-ended questions (e.g. 'Why is Farah overweight?'). A vignette is a short description or character sketch of a person or story. The researchers drafted fictional vignettes involving a character named 'Farah', a 38-year-old, married, overweight Pakistani mother of four, living in Manchester. This technique was used to explore issues such as obesity, food, health, fatalism, faith, age and family dynamics. According to the method of progressive focusing where new and emerging issues are explored<sup>(29)</sup>, the vignette was adapted as the need for new data became apparent (e.g. exploring motivators). In total, five versions were used. Subtle references were made within the vignette to T2D (Farah being thirsty and tired), while later versions focused on her as a mother (e.g. with an overweight son) and wife (e.g. with an unwell husband). Comparing responses allows for further theories to emerge.

The participants were also shown a series of seven female silhouettes ranging from an underweight figure to an obese figure, i.e. representing an un-stated BMI of 17 kg/m<sup>2</sup> to 35 kg/m<sup>2</sup> (Fig. 1). These were used to explore the women's perceptions of body shape, as applied to Farah.

All interviews were recorded and transcribed verbatim. For all sessions, selected second-generation women who read English were sent copies of their transcripts for member-checking, amending as necessary. The translator clarified nuances within the transcripts of the non-English speaking first-generation women.

According to recommendations for qualitative research<sup>(30)</sup>, sampling ceased when no new themes emerged from the data collected.



Fig. 1 The seven female silhouettes ranging from an underweight figure to an obese figure (representing an un-stated BMI of 17 kg/m<sup>2</sup> to 35 kg/m<sup>2</sup>), used to explore the women's perceptions of body shape. Reprinted with permission from 'The Body Test' (1988). © Dietitians of Canada



Demographic data were collected using a questionnaire. These data included age, marital status, number of children, birthplace and how much education they had received. The women were asked to estimate how frequently they ate Pakistani vs. English meals or ate away from home each week.

### Analysis

The transcripts were initially analysed using theme identification and coding. The phenomenological analysis aimed to intensify the researchers' understanding of the text in its constituent parts, using the method of Van Manen<sup>(31)</sup>. The text was broken down and categorised manually into domains of Time, Space, Body and Human Relations (van Manen themes) with the added domains of Foodways<sup>(32)</sup> and Health Beliefs (authors' themes). The data were placed within each theme and then coded to identify sub-themes. Following the initial analysis (by A.F.L. and B.E.), additional interpretation and analysis of the emerging themes was then provided by a sociologist (P.C.) according to researcher triangulation. This process aims to reduce bias and is designed to enhance validity<sup>(32)</sup>.

The sociological analysis allowed the researchers to 'see' the participants from a new perspective, taking into account the influences involved. This perspective formed the social construction of obesity beyond its biomedical definitions. The researchers sought to elucidate the participants' understanding of health risks, knowledge, prevention, barriers and motivators for diet and lifestyle.

### Results

#### Participants

Fifty-five women participated in six focus groups or ten one-to-one interviews. The first-generation women (*n* 44), median age 45 years, were born mainly in Pakistan (Table 1).

**Table 1** Characteristics of the study participants: Pakistani women, Greater Manchester, UK

	First generation* ( <i>n</i> 44)	Second generation ( <i>n</i> 11)
Median age	45 years	32 years
Birthplace	Pakistan: Lahore, Gujranwala, Abbottabad, Quetta, Gujarat, Islamabad, Mirpur, Azad Kashmir, Karachi, Rawalpindi, Jhelum	Manchester, London, Leeds, Doncaster
Marital status		
Married	41	6
Not married	0	5
Widowed	3	0
No. of children	3-4	1-9
Education		
Average age at completion	9-1 years	20-6 years

\*One woman was not sure of her age.

The median age for the second-generation women was 32 years (overall range 23-80 years). Education levels ranged from no formal education (*n* 9) to post-graduate (*n* 2). Among first-generation women, 80% had some education; whereas 100% of second-generation women were educated. In the following, italicised quotes show the data gathered about Farah.

### Phenomenological analysis

#### Diabetes symptoms

The participants did not recognise Farah's symptoms of thirst and frequent tiredness as being suggestive of T2D. Some believed that Farah was not well and suggested tuberculosis, cancer or being overweight, and that she was not eating or drinking properly. A 50-year-old mother stated: '*She's [Farah] not eating properly so her health is suffering. She probably can't work in the house any more. She could have some illness ... she is too fat.*'

#### Reasons for overweight

Reasons cited for Farah's weight gain included childbirth, her age (at 38 years she was considered 'old' by some participants) and inactivity.

#### Health action

Overall the women did not express a preference for a source of sound health advice. Some stated that they would consult a doctor, nurse, health visitor or social worker. However, others sought advice from elders: '*I think professional doctors and nurses, we can find out from them ... but mostly ... we follow the tradition we learn from our parents.*'

#### Motivation to change

A lack of motivation to address weight problems was expressed as: '*Women tend to not think about themselves and don't like seeing their bodies.*' Barriers, evident among first-generation women, included the influence of the men in the family on home cooking, weight gain as being natural and unavoidable, and there appeared to be a lack of concern for preventing illness ('... *food has nothing to do with it, when your time's up, your time is up ...*'). The prevailing attitude seemed to be that health and weight gain were not things the women often thought about, as they were too 'busy'. However, some women described themselves (and Farah) as 'lazy' in terms of taking exercise (e.g. walking) or changing their cooking habits.

A principal motivating factor was the need to look after their children and home and they sensed that they should do something about their weight when it caused pain.

### Sociological analysis

#### Identity deconstruction: Muslim, Pakistani, British

Separating 'dimensions' of ethnicity was difficult, as reported by previous researchers<sup>(20,33)</sup>. The Muslim identity, described

as being '100% complex', seemed to be the strongest identity as it dictated food habits. It has been suggested that Muslims are likely to learn about health from their mosque and the Koran<sup>(34)</sup>. However, the Koran was not a constant source of food information except for *halal* (meaning permitted; e.g. fruits, vegetables, nuts, honey, milk, meat slaughtered according to Islamic law)<sup>(35,36)</sup> and *haram* (e.g. not permitted) foods (e.g. pork, lard, etc.) and alcohol avoidance<sup>(35,36)</sup>. The Pakistani cultural and spiritual identity was the second strongest influence. Among second-generation Pakistani women, the British identity may have been as strong as their Pakistani identity.

#### Family

Family life is essential and sacred within Islamic society. Women are assigned the 'duty' of looking after the household and act as 'culture-bearers'. Indeed, the interests of family often took precedence over those of the individual woman, as has been previously reported<sup>(20,22)</sup>. This is likely to diminish motivation and opportunities to address weight gain. Conversely, it could also provide motivation to change, as the participants acknowledged that weight gain and illness could interfere with family duties.

#### Emergent themes

**Risk awareness.** The participants did not always connect obesity with diabetes. One mother of eight perceived that diabetes was caused by stress, as previously reported among South Asians<sup>(17,37)</sup>. Another woman from Rawalpindi understood a connection between obesity and diabetes, but believed that the former resulted from the latter.

**Urban v. rural background.** The women's region of origin may affect beliefs and practices, including education level, English literacy, empowerment and activity levels. For example, participants stated that urban women may have access to an English education and be more empowered within their marriages. However, some women suggested that the rural life might be beneficial, in terms of the climate, fresh air and the level of activity.

**Climate.** Participants often blamed the colder British climate for weight gain, because it caused them to sweat less and to engage in less outdoor activity. Such associations have been reported previously among South Asians<sup>(17,22)</sup>. Some women also linked the appropriateness of the traditional diets with climate, i.e. eating clarified butter (*ghee*) was acceptable in Pakistan where women were more active.

**Food traditions/expectations.** Typically, food was prepared from scratch every day using recipes passed down by word of mouth and was described as being 'healthier'. Most of the participants reported eating such food at least once a day, often in the evening with the family. Breakfast was sometimes described as an 'English meal' at which South Asian food was rarely eaten, as has been reported in other studies<sup>(37)</sup>.

There was a strong influence of family expectations (including male dominance) on food preparation (e.g. the amount of oil used in curry) and consumption. Generally, younger Pakistani women received advice (whether it was asked for or not) from their elders. Pakistani men also have a responsibility for maintaining traditional cultural practices<sup>(20)</sup>. The social importance of cooking for guests and of celebratory meals was described. Hence, it may be difficult for the Pakistani woman to change food practices.

Some women described eating their family meals while sitting on the floor, rather than around a table. One second-generation woman explained this as a traditional means of controlling the amount eaten: legs closer to the stomach was said to reduce the amount eaten.

**English v. Pakistani food.** Some perceived that English food is processed 'fast' foods and breakfast-type foods. The women had mixed perceptions of Pakistani food, as it was perceived to have many healthy ingredients (including ginger and garlic), but also could be unhealthy, such as common use of fat and frying. Other ingredients were considered to have specific benefits, e.g. *karela* (thought to counteract diabetes), black onion seeds and honey. Certain food combinations were considered inadvisable (e.g. it was suggested that eating fish and milk together could cause skin conditions).

According to questionnaire data, first-generation women consumed more traditional meals (6.3 meals/week) than English meals (2.0 meals/week). Second-generation women ate slightly fewer traditional meals and reported eating slightly more meals away from home each week (Table 2). Chips and beans seemed to be a favourite English meal (a *halal* option). Some were aware that eating takeaway meals could be unhealthy.

**Obesity and health.** Perceptions of a healthy and overweight women's body size varied. When asked what the 'overweight' Farah looked like, the participant's responses ranged from silhouettes 4 to 7 corresponding to a BMI of 22.5 kg/m<sup>2</sup> up to 35 kg/m<sup>2</sup>. Silhouette 3, corresponding to a BMI of 20 kg/m<sup>2</sup>, was generally considered the healthiest.

Increased weight may not always be perceived as unhealthy and may be viewed as indicating good health, wealth or status<sup>(17,22)</sup>. Body shape perceptions may also

**Table 2** Mean number of times per week the participants reported to eat Pakistani meals, English meals or takeaways, according to country of birth: Pakistani women, Greater Manchester, UK

Meal type	Country of birth	
	Pakistan (n 44)*	UK (n 11)
Pakistani/traditional	6.3	5.4
English	2.0	3.7
Takeaway	0.7	1.8

\*Forty participants were born in Pakistan, three were from India and one from East Africa, although all considered themselves 'Pakistani'.

be affected by modesty traditions and some pointed out that a woman dressed in traditional clothing was not always aware of her shape.

Table 3 summarises other potential differences in the viewpoints between British Pakistani women and health professionals.

#### Health Action Transition model

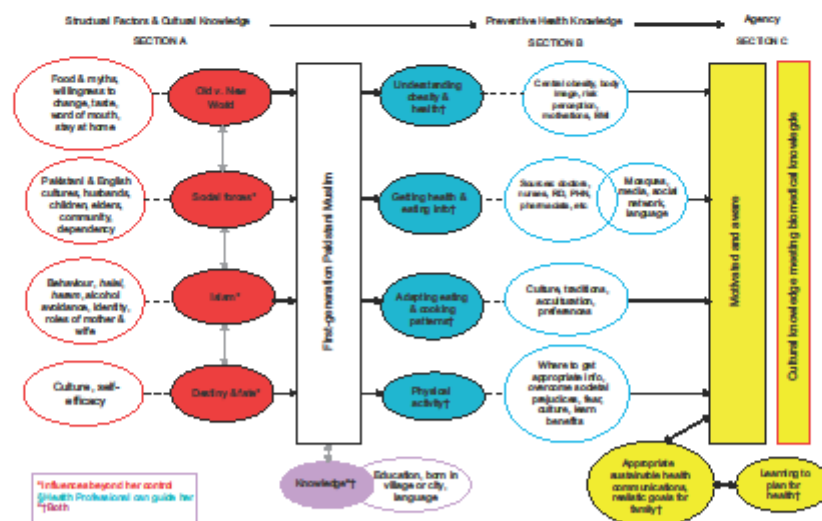
To our knowledge, existing health models do not take account of the information obtained in the present study. Accordingly, a new Health Action Transition model of

health improvement in first-generation Pakistani women in North West England is proposed (Fig. 2). The model allows the multi-directional dimensions underlying the construction of health and its impact on dietary change to be addressed.

The model is in three parts: Section A is entitled 'Structural Factors and Cultural Knowledge', Section B is 'Preventive Health Knowledge' and Section C is 'Agency'. Section A represents the uncontrollable aspects in the woman's life and Section B represents the controllable aspects via increased health knowledge. The boxes on

**Table 3** Some possible differences between the health and lifestyle viewpoints of British Pakistani women and UK health professionals

British Pakistani women	Health professional
Diabetes is probably caused by stress or migration; diabetes precedes obesity	Obesity contributes to type 2 diabetes
Food and diet are already healthy	Diet is not healthy (i.e. too oily or not enough fruit and vegetables)
Need more physical activity	Need more physical activity
Traditional Pakistani/cultural views of health (e.g. sweating in hot climate is better for digestion and weight loss)	Westernised view of health (e.g. quality of food, portion control and physical activity can lead to improved health)
Women want to please husbands and children with preferred food and preparation	Women desire and have the willpower to change cooking and eating habits for themselves and their family
Obesity could be healthy; not a problem	Obesity is a problem; based on waist-to-hip ratio, BMI, waist circumference, etc.
Obesity is inevitable (e.g. post-childbirth and age)	Obesity is preventable and is not inevitable
Fate and destiny	Prevention and risk assessment
May not be aware of some healthy eating messages (e.g. five portions of fruit and vegetables daily)	Assumes awareness of healthy eating messages
Health not always a priority; looking for a 'quick fix'	Health is a priority; looking after health is ongoing



**Fig. 2** The newly proposed Health Action Transition conceptual model of health improvement in first-generation Pakistani women in North West England. ● represent the background influences (uncontrollable) and ○ the interconnected factors; ● represent professional guidance (controllable) and ○ their related actions, location and time; ● are those influences both controllable and not (RD, registered dietitians; PHN, public health nutritionists)



the far left of Section A represent the woman not yet taking responsibility for her health or possibly being unmotivated to act (as perceived by the health professional). Moving to the right, the circles then delineate concepts (or 'dimensions') related to her understanding of health, obesity, foodways and cooking patterns. Section B suggests that the Pakistani woman will ideally be influenced by various health professionals and not just by her peers and elders. Rather than considering weight gain as inevitable, this woman takes control of her health.

Section C is the stage which health-care professionals would ideally wish her to reach. The model should help health professionals understand that certain influences are uncontrollable and that she might have a strong sense of predestination. Respecting these issues, health professionals can promote preventive measures that can help the woman take some responsibility for protecting her long-term health, for example in making informed decisions about weight loss. By taking these complexities into consideration, health professionals can encourage healthier behaviours in the Pakistani woman, who will then extend these to her family and community.

### Discussion

The present qualitative study aimed to provide insight into the social and cultural constructs underlying perceptions of diet, weight gain and health risks among British Pakistani women in North West England, and how these relate to Westernised biomedical models, in order to facilitate efforts to promote good eating practices and address health inequalities.

Qualitative research methods are valuable in allowing the exploration of complex behaviours, attitudes and interactions<sup>(30)</sup> and have previously been used to explore diet and health in South Asians<sup>(17,22,39,40)</sup>. Various socio-cultural factors can hamper research among South Asian groups, especially women. Accessing women who are mostly housebound can be difficult. If perhaps unused to giving their opinion, such women may be concerned about giving the 'right' answer. Some may be reluctant to discuss health and weight issues. The current research reached a cross-section of Pakistani women, including non-English speaking and the hard-to-reach. It employed a South Asian researcher and translator in order to aid access and communication and to apply both 'insider' and 'outsider' perspectives. The analysis was also enhanced by rigorous qualitative research methods and a sociological perspective.

### Strengths and limitations

Common limitations in qualitative and transcultural research include the use of relatively small samples and the need to translate and interpret interviews. It could be argued that a study limitation was the use of a

non-Pakistani moderator and the broader applicability of these findings needs to be tested. Data concerning the socio-economic status of the women and length of UK residency were not collected. The usefulness of BMI silhouettes was limited because they represented weight gain in Caucasian women, characterised by hip adiposity, rather than in South Asian women, who tend to accumulate fat centrally. Furthermore, BMI thresholds for diabetes risk are lower in South Asian women than in Caucasian women<sup>(41)</sup>.

### Pakistani women food and health

The present study supports evidence of a lack of understanding about T2D and its relationship with weight gain among South Asians<sup>(23)</sup> and demonstrates that preventive measures are still required<sup>(42)</sup>. The participants expressed concerns about weight gain, including the contributory roles of stress, climate, age and childbirth, many of which have been reported previously<sup>(7,22,37)</sup>. Importantly, the women expressed a strong sense of fatalism with regard to health risks and weight gain (also previously reported) but desired more health knowledge.

Multiple dimensions of identity were exhibited, including being Muslim, Pakistani, British, female and mothers. For the second-generation women, Islam is considered in relation to *halal* and *haram* food (e.g. checking food labels for vegetarian or *halal* ingredients) when shopping in a non-Asian food store. The women were strongly influenced by cultural traditions and family expectations with regard to food preparation and consumption, and these represent important barriers to change. The study supported other evidence that South Asian groups prefer traditional food over English food<sup>(43)</sup>. The women adhered to traditional Pakistani food habits, important to them, socially and culturally. Radical changes to these habits would be neither possible nor desirable for them. Other researchers have identified these influences on diet and food shopping, together with factors such as age, lack of time, language barriers, climate and access to foods<sup>(22,24,39,44)</sup>. Cultural barriers may outweigh personal motivation for weight loss, such as personal appearance<sup>(45)</sup>.

The prioritisation of the family's expectations and needs concurs with other evidence that exercise beyond housework is considered selfish by some South Asian women<sup>(46)</sup>. These perceptions may be at odds with individualistic motivations in commercialised healthy living (e.g. gym membership) and with individualistic models of behaviour change that involve concepts such as self-efficacy or empowerment. However, family concerns could be a motivator where weight gain compromises the woman's role as family carer. Also, the health of the children or husband may also be an important motivator towards dietary change.

This familial collectivism suggests that conventional health models that place emphasis on individuals and

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their self-efficacy (e.g. the Health Belief Model<sup>(47)</sup>) may not be readily applicable to South Asian women.

#### Health promotion and education

Many of the aforementioned barriers to research in South Asian groups also hamper nutrition and health intervention programmes<sup>(42,43,48)</sup>. Experience from a health project among South Asians in Manchester has illustrated the difficulties in engaging communities and the importance of addressing wider social determinants of health, beyond ethnicity<sup>(39)</sup>.

The food and health practices of the participants in the present study were strongly influenced by their peers and elders. This reinforces that family-based educational interventions are useful in these communities. The participants did appear to recognise the important role of health-care professionals, however. Other recent evidence also suggests that South Asian women may be strongly, though passively, influenced by their doctor's recommendations and that word of mouth may have an important role in promoting programmes<sup>(23)</sup>. Other evidence suggests that Pakistani-born people with diabetes expect empathy and care from health workers, rather than an authoritarian style<sup>(40)</sup>.

Positive aspects of traditional food practices should be reinforced, including cooking from scratch using a variety of fresh and healthy ingredients (such as ginger and garlic) and family meals. The importance of breakfast and lunch should also be emphasised. Only recently have validated tools been developed to assess diets in this group<sup>(46)</sup> and capturing the complexity of these diets remains a challenge.

#### Health Action Transition model

Various models have been developed to describe and facilitate behaviour change with regard to health<sup>(50-52)</sup> and ideally should be culturally and socially sensitive<sup>(53)</sup>. Designed in response to the findings, a new conceptual model was developed to consider public health nutrition and health promotion planning within a sociological context. To our knowledge it is the first model to describe the cultural and sociological influences among Pakistani women with regard to diet, weight gain and health. It is designed to demonstrate the complexity of the interwoven influences on the Pakistani woman and to help the health professional engage with her using concepts beyond BMI or waist circumference measurements.

The model implies a continuous progression (with a positive health-related outcome) from awareness through to initiation and maintenance of action. It also demonstrates a sustained educational process in which many controllable influences and motivators may contribute (e.g. general practitioners' surgeries, Asian food suppliers and stores, community centres and children). Some forces may be uncontrollable (e.g. Islamic food laws and family/societal roles). According to this model, the woman

maintains her traditional ways of cooking and eating patterns but understands the risks associated with overweight/obesity and becomes more aware of healthier habits (e.g. using less oil or salt). Step by step she will take responsibility by taking control of her health, applying this knowledge to her family and community.

The model may be used to tailor preventive health information that integrates cultural beliefs with biomedical knowledge. Moreover, it may be used to improve cultural awareness among health professionals (particularly dietitians and nutritionists) working with and counselling Pakistani women about weight management and as an educational tool in the training of these professionals.

#### Conclusions

Health education programmes that aim to address obesity and its associated risks in South Asian communities must take into account the complex beliefs and practices and the multiple religious, ethnic and social identities that interact within this population. The present study provides further insight into these factors and proposes a Health Action Transition conceptual model for use in designing and implementing education interventions for British Pakistani women.

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